

1 UNITED STATES DISTRICT COURT
2 WESTERN DISTRICT OF WASHINGTON AT SEATTLE

3
4 MICROSOFT CORPORATION,)
5 Plaintiff,) C10-01823-JLR
6 v.) SEATTLE, WASHINGTON
7 MOTOROLA INC., et al,) November 13, 2012
8 Defendant.) TRIAL DAY 1
9)

10 VERBATIM REPORT OF PROCEEDINGS
11 BEFORE THE HONORABLE JAMES L. ROBART
12 UNITED STATES DISTRICT JUDGE

13 APPEARANCES:

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16 For the Plaintiff: Arthur Harrigan, Christopher
17 Wion, David Pritikin, Chris Wion,
18 Rick Cederoth, Ellen Robbins and
19 Andy Culbert

20 For the Defendants: Jesse Jenner, Ralph Palumbo,
21 Philip McCune, Steve Pepe, Kevin
22 Post and Gabrielle Higgins
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1 THE COURT: I don't believe this courtroom has been
2 this full since we were dealing with the constitutionality of
3 a Seattle strip club ordinance.

4 The clerk will please call this matter.

5 THE CLERK: Case C10-1823 Microsoft Corporation
6 versus Motorola. Counsel, please make your appearance.

7 MR. HARRIGAN: Good morning, Your Honor. Art
8 Harrigan from Calfo Harrigan Leyh & Eakes. And with me to my
9 left is David Pritikin from Sidley; and Rick Cederoth, also
10 from Sidley; and Andy Culbert from Microsoft; my partner,
11 Chris Wion; and Ellen Robbins from Sidley. And on the back
12 bench we have my partner, Shane Cramer; and David Giardina
13 from Sidley; and David Killough, down at the end, from
14 Microsoft.

15 THE COURT: Thank you.

16 MR. JENNER: Good morning, Your Honor. Jesse Jenner
17 from Ropes and Gray. With me at counsel table are Ralph
18 Palumbo from Summit Law Group; Steve Pepe from Ropes and
19 Gray; Kevin Post from Ropes and Gray; Phil McCune from
20 Summit; Gabby Higgins, from Ropes. Craig Hazelman will be
21 handling the technology for us. And I think it would be
22 appropriate to introduce Bill Serra and Mike Duffy, who will
23 be introducing documents before the court.

24 Finally, I'd like to introduce Tom Miller, who is the Vice
25 President For Intellectual Property for Motorola Mobility,

1 who the court has seen on the papers, at least.

2 THE COURT: All right. Thank you, counsel. Let's
3 talk about today's schedule. We're going to begin at
4 9:00 a.m., and we will take our morning break at around
5 10:30, somewhere where it's convenient in terms of the
6 presentation of testimony. We'll go until noon. And in the
7 afternoon we will begin at 1 o'clock, as opposed to 1:30, so
8 1 o'clock, and we'll go until 4 o'clock.

9 Unfortunately, the matter that's going to come on at
10 4 o'clock involves a criminal defendant who is in full
11 restraints, so I suspect you all will not want to be here
12 when he arrives. And you'll need probably to clear off,
13 other than the court's equipment, what's on the counsel
14 table, as he's charged with assaulting both court personnel
15 and Federal Detention Center personnel. So know that that's
16 a little bit different. Normally you'll be able to just
17 leave stuff in here. For that one we'll ask you to at least
18 clear off your side of the courtroom.

19 Tomorrow, so you can have some sense of where we are,
20 we'll begin at 9:00, run until noon, begin at 1:00, and run
21 until 3:00. The court is going off to talk to the City of
22 Seattle about the addition of 3,800 parking spaces and three
23 Amazon office buildings, which will mean that we will not be
24 able to get in or out of the courthouse. So I'm part of that
25 delegation.

1 Thursday, 9:00 until noon, and 1:30 -- because Thursday is
2 our customary judge's lunch -- until 4:00 p.m.; and Friday,
3 9:00 a.m. to noon, and 1:30 to 4:30.

4 I've about finished reading your depositions. Thank you
5 for facilitating that process. It looks to me like I'm going
6 to take about ten hours to read them. I have to read the
7 entire deposition, because some of your objections are asked
8 and answered, and such. So I at least browse through all of
9 that. Notwithstanding that, I'm prepared to eat part of that
10 time.

11 So we are currently scheduled on Monday from 1:00 p.m.
12 until 4:30; and on Tuesday from 9:00 to noon, and 1:00 p.m.
13 to either 4:00 or 4:30. I kept Wednesday open in terms of
14 how we're coming in terms of using up time, and if we need to
15 add some additional time to wrap something up. I can tell
16 you that I think you're all out of here on a hard stop at
17 noon on Wednesday. So please adjust your plane reservations,
18 as I know many of you have to travel some distance.

19 So, Mr. Harrigan, Mr. Jenner, any questions about
20 scheduling?

21 MR. HARRIGAN: No, Your Honor.

22 THE COURT: I'm hopeful that once they've realized
23 how boring this is, that the crowd will thin out, but who
24 knows. The court has been pestered with calls from Brussels,
25 and Germany, and assorted other places. So folks must not

1 have anything better to do.

2 So, we'll do what we can to make sure everyone gets a
3 seat. I'm not sure how we will do that. We may need to
4 bring in some additional chairs, if we've got room.

5 The court issued, yesterday, an order granting in part and
6 denying in part motions to seal. Counsel, have you had an
7 opportunity to review that and want to make any comments on
8 it?

9 MR. WION: Yes, Your Honor, we have.

10 THE COURT: All right. Any comments?

11 MR. WION: We have a few.

12 THE COURT: All right.

13 MR. WION: So, Your Honor, yesterday evening the
14 parties exchanged a number of exhibits that one or the other
15 side had expected to introduce at today's session. There
16 were approximately 50 or so exhibits that were exchanged.
17 And what the parties have done since yesterday evening is
18 attempt to identify which of those documents contained trade
19 secret information for which appropriate sealing or redaction
20 may be necessary.

21 What we have done, on the Microsoft side, is identified
22 five of those documents as appropriate for some treatment
23 along those lines. Two of the documents we have proposed
24 redactions for, and the other three are exhibits that the
25 court has already determined should be sealed, in yesterday's

1 order.

2 Would Your Honor like to see the five exhibits that we've
3 selected?

4 THE COURT: Yes.

5 MR. WION: May I approach?

6 THE COURT: Yes.

7 MR. WION: So, Your Honor, if I may start with the
8 two documents that we have provided redactions for, these are
9 Trial Exhibit 1141 and Exhibit 1636. Both of these documents
10 are H.264 patent pool agreements that disclose the royalty
11 distribution mechanism that was adopted by the pool. This is
12 the MPEG LA pool, and also discloses the other financial
13 information, including payments and administrative fees of
14 MPEG LA. MPEG LA has submitted a motion requesting this
15 information be redacted, and on that basis Microsoft has
16 provided those proposed redactions.

17 With respect to the other three documents, I'm happy to
18 discuss them. They are Exhibit 288, Xbox Technical
19 Publisher's Guide; 2353, Durango Products Specifications; and
20 2727, a document entitled Honing the Living Room. And each
21 of these documents were sealed, pursuant to yesterday's
22 order, on page 6 for Exhibit 288, and page 10 for the other
23 two exhibits.

24 Our understanding, although subject to the court's
25 clarification, is that at present we have met the relevant

1 standard and that we can proceed with the exhibits as they
2 have been provided to the court.

3 THE COURT: In terms of when these will come up --
4 what I want to avoid is closing the courtroom, opening the
5 courtroom, closing the courtroom, opening the courtroom. Are
6 these coming up with one particular witness, or -- in terms
7 of the pure sealed documents?

8 MR. WION: I would anticipate that these may be
9 introduced in connection with one or possibly two witnesses.
10 The slight difficulty that Microsoft has had in connection
11 with these documents is that two of them, two of the three,
12 have been identified by Motorola. And so it's not entirely
13 clear how they are intended to be used, or what portions of
14 those documents will be discussed. Although, we will
15 certainly make every effort to avoid a situation in which the
16 courtroom would need to be closed. We simply don't have the
17 information right now to know the manner in which Motorola is
18 intending to use those documents.

19 THE COURT: Well, while it will be awkward,
20 fortunately we have some flexibility because this is a bench
21 trial. If we clear the courtroom, both sides will do all
22 presentation of their evidence in regards to that particular
23 document at that time. So we won't do direct, let people
24 back in, finish the direct, take them out for cross, bring
25 them back in for cross. I mean, we're going to do it once.

1 I'll ask your patience with that. But it's going to be
2 necessary to expedite this.

3 MR. WION: Understood, Your Honor. Thank you very
4 much.

5 THE COURT: Mr. Jenner, anything from you, sir?

6 MR. JENNER: Mr. Brenner will speak on our behalf for
7 this.

8 THE COURT: Mr. Brenner.

9 MR. BRENNER: Your Honor, last night, as opposing
10 counsel mentioned, we exchanged some redacted documents. And
11 I believe we sent four documents that contained proposed
12 redactions to opposing counsel. We are, I think, going to
13 probably use two of those documents today. May I approach
14 the bench with copies?

15 THE COURT: Yes.

16 MR. BRENNER: Just to explain what we've just handed
17 you. There are two exhibits there. There's an additional
18 page. There's Exhibit 13, which is one of the licenses which
19 the court said should be provisionally sealed. And then
20 there's 1173, which is a table showing various licensing
21 terms. The version of 1173 that has -- both of these, by the
22 way, show proposed redactions so you can see the information.
23 The version of 1173 that shows proposed redactions was not
24 completely redacted, and we shared with opposing counsel this
25 morning the additional redaction to that front page that we

1 would like at this particular time.

2 THE COURT: All right. Which witnesses will these
3 come up with?

4 MR. BRENNER: During cross examination.

5 THE COURT: All right. With Mr. DeVaan?

6 MR. BRENNER: No, I believe with Mr. Murphy -- Dr.
7 Murphy. Your Honor, may I ask a couple of clarifying
8 questions about the order from yesterday?

9 THE COURT: You can try.

10 MR. BRENNER: Okay. Thank you. One question we had,
11 we understand that various licenses and licensing provisions
12 will come in as provisionally redacted, and then if they
13 appear in your final order, that information will be made
14 public. I think it's not entirely clear to me whether that
15 information, whether that means that that information will
16 become public, or the entire document will, at that point, be
17 revealed in an unredacted form.

18 THE COURT: It will be only information that is
19 relied upon by the court. So that if, for example, you have
20 got a royalty rate -- I think our favorite example we've
21 kicked around a couple of times is the RIM royalty rate -- if
22 that is used by the court, it is going to be stated, and the
23 exhibit that it comes from will be available as to that
24 royalty rate, not the entire exhibit in whatever form it was
25 introduced by the court, or by the parties, with that one

1 part unredacted.

2 MR. BRENNER: So, Your Honor, would it be possible at
3 that point, after your order comes out, for the parties to
4 present versions of these exhibits with just that information
5 publicly revealed?

6 THE COURT: If you want to do it on 48 hours' notice,
7 yes.

8 MR. BRENNER: Thank you.

9 One other question is -- well, actually two related
10 questions. When we come in at 9 o'clock in the morning with
11 proposed redactions for exhibits that we plan to use that
12 day, obviously today we're engaging in cross examination,
13 it's possible that documents might come up during the course
14 of the direct examination that we didn't anticipate using
15 that we might want to use. Is there a procedure? Can we
16 submit those on a sealed provisional basis and come in the
17 next morning with proposed redactions at that point?

18 THE COURT: Mr. Wion, any objection to that?

19 MR. HARRIGAN: We're pretty much in favor of anything
20 that avoids closing the courtroom.

21 THE COURT: Let's try that.

22 MR. BRENNER: The last question is, we've submitted
23 proposed redactions. I think opposing counsel has mentioned
24 it's not exactly clear what information may come out, what
25 may not. I think we would just ask that we be allowed to

1 submit revised redactions, or revised proposed redactions
2 after you've had a chance to look at these proposed
3 redactions, or later on in the day.

4 THE COURT: That's fine.

5 MR. JENNER: Your Honor --

6 THE COURT: Yes.

7 MR. JENNER: I have a supervening issue that arises
8 out of the order on which we'd like guidance from the court,
9 if possible. The way Your Honor's order handles information,
10 as you've just noted, is that information like royalty rates,
11 that comes into the record, will be made public with respect
12 to the party involved, the third-party licensee, for example,
13 if it appears in the opinion of the court. And I think Your
14 Honor probably expects that we will be providing royalty
15 information as a part of Motorola's case.

16 The third parties, many of them, received copies of the
17 orders, and as you might be imagining, in many instances
18 third parties have expressed grave concern to the point where
19 at least one party has submitted a letter to us -- and I'd be
20 happy to share that with the court, if it helps -- in which
21 the party is adamantly opposed to having its information, its
22 confidential information appear in the record. They would
23 consider it to be a breach both of the protective order as
24 well as a breach of the agreement with Motorola.

25 We are sensitive both to the court's ruling as well as the

1 concerns of the third parties. We are wondering if there is
2 a possibility, in light of the order, of some sort of middle
3 ground that might be possible. I know in the past, in a
4 hearing, I think the notion came up of providing a code sheet
5 to the court and witnesses, where rather than name a company
6 in relation to a royalty rate, or a confidential provision,
7 there was the prospect of everyone sharing legends like:
8 Company A, Company B, Company C, so that the company could at
9 least have the prospect of having what it considers to be its
10 confidential information remain so.

11 I presume the court has issued its ruling and you're not
12 prepared to entertain -- maybe you are, requests from third
13 parties. And I should point out that at least one
14 third-party's counsel is here, and would like to be heard, if
15 possible, should its information come up.

16 But would Your Honor either entertain reconsideration with
17 respect to licensing agreements; would you entertain the
18 prospect of using such a code sheet; or would there be some
19 other guidance the court might have on a way in which we
20 could try to be sensitive to the concerns of third parties
21 regarding their licensing information?

22 THE COURT: The court has spent a lot of time looking
23 at this, and that includes talking to my colleagues both in
24 the Ninth Circuit and outside the Ninth Circuit, about how
25 they've approached this issue in other cases raising some of

1 the same issues. And I recognize that I am taking probably
2 the most expansive view of the public's right to know.

3 I am not going to reconsider the order. If someone wants
4 to propose the code sheet suggestion, I'm happy to take a
5 look at that tonight. That's not one that I thought about.
6 I've tried to do this in a manner that the parties, frankly,
7 can control the release of information in that the witness
8 will have the unredacted document, and counsel and the court
9 will have it. And your questions don't need to, other than a
10 mutual experience we had recently where a number kind of just
11 popped out, it doesn't need to be disclosed, until we get to
12 the point that if I'm going to issue an order that attempts
13 to explain how I set this royalty rate, at that point it
14 seems to me the public has the right to know what I relied
15 on.

16 So that's my thinking and that's sort of the best I can do
17 to explain it.

18 MR. JENNER: I understand, Your Honor. We will
19 certainly give consideration during the course of the day to
20 a code sheet. I guess it takes us back to the beginning of
21 the case with the decoder rings. We'll give consideration to
22 whether there is something we think the court might find
23 workable.

24 In respect of the third parties, one counsel asked to be
25 introduced to the court in the event a document were offered

1 during testimony. I don't want to interrupt testimony.
2 Would the court entertain whatever it is that counsel for
3 this party would like to say now, rather than interrupt
4 during a witness's testimony?

5 THE COURT: When do you expect that document to come
6 up?

7 MR. JENNER: It could come up today during the course
8 of the Murphy cross.

9 THE COURT: We'll come back a little bit early and
10 I'll hear him at ten to one, or something.

11 MR. JENNER: Thank you. Thank you, Your Honor.

12 THE COURT: Last two announcements. One of the sets
13 of pleadings that had been filed was an attack on
14 Mr. Culbert's integrity -- that was intended to be a joke,
15 Mr. Culbert -- since you are now privy to some confidential
16 information. I haven't gone back and looked at my original
17 order to appoint you and a Motorola person to serve in this
18 role. I believe I limited it to anything you learned could
19 be used only in connection with this case. If that's not in
20 there, I will add it at this time. I suspect you're already
21 operating under that.

22 MR. CULBERT: I am, Your Honor. That's my
23 understanding of how that was supposed to work.

24 THE COURT: All right. Mr. Jenner, I don't know who
25 Motorola designated? Sounds like it's Mr. Miller.

1 MR. JENNER: Mr. Miller is on the rise, Your Honor.

2 MR. MILLER: I don't think I've seen anything in this
3 area.

4 THE COURT: All right. If you do, sir, you'll be
5 under the same restriction. That needs to be used in
6 connection with this case and not for negotiations with other
7 parties.

8 MR. MILLER: Absolutely.

9 THE COURT: Thank you. Then lastly, counsel, before
10 we get to our first witness, you asked to submit post-trial
11 briefs, which I believe that I have authorized. At that time
12 I would also like you to submit annotated findings and
13 conclusions. So take your findings and conclusions and
14 annotate them to the record. That way you'll be able to have
15 citation to testimony and also to exhibits. And that's
16 helpful, as we've been working through this.

17 Anything further at this time?

18 MR. JENNER: Just on that last point, Your Honor, can
19 we set the timing for post-trial briefs and annotated
20 findings at the conclusion of the trial?

21 THE COURT: It will likely be ten to fourteen days.
22 It won't be the following Monday so that we've ruined your
23 Thanksgiving, but it will be fairly prompt. But if there's
24 a reason why that time frame is not going to work, then we'll
25 take it up.

1 MR. JENNER: We'd just like the opportunity to
2 consider it with the court in case there's some unusual
3 problem.

4 THE COURT: That's fine. I'm not sure, Mr. Harrigan,
5 are you conducting direct examination today?

6 MR. HARRIGAN: Your Honor, a preliminary matter.
7 With the court's permission, Microsoft would like to make an
8 opening statement of about ten minutes' duration.

9 THE COURT: You're welcome to spend your time any way
10 you'd like.

11 MR. HARRIGAN: Thank you, Your Honor.

12 Your Honor, the issue in this case is how to arrive at a
13 RAND range and a RAND royalty for Motorola's standard
14 essential patents in two portfolios: H.264 video compression
15 and 802.11 wireless networking. Microsoft believes that the
16 basic tenets for resolving this issue are two: First, that
17 the royalties should not include any value that arose by
18 reason of inclusion in, or widespread adoption of the
19 standard, sometimes called the hold-up value. And secondly,
20 that the royalty should be proportionate in two ways. First,
21 it should be proportionate to the contribution of the
22 Motorola patents to the standard itself. That avoids an
23 unreasonable aggregate royalty that could defeat the
24 standard. Second, the royalty should be proportionate to the
25 contribution of Motorola's patents to the Microsoft products

1 that implement the standard. Microsoft's witnesses and other
2 evidence will not only support this approach, but the result
3 will be to provide a truly RAND evaluation.

4 Motorola takes an approach that does not lead to a RAND
5 valuation. Motorola's approach embodies hold-up. It asks
6 the court to rely on patent licenses that simply do not bear
7 on the issue. They relate to fundamentally different
8 technology from that involved in the standard essential
9 patents here. Motorola participated in the standard setting
10 process. As part of that participation they made RAND
11 commitments, but refused to honor them. Instead, it insisted
12 on unjustifiable payments for minor and incremental parts of
13 broad technology standards. If this hold-up strategy is
14 upheld here, it will spread and lead to royalty stacking,
15 dramatically raising consumer costs.

16 Now, in the balance of this statement, Your Honor, I am
17 going to very briefly advise the court of the thrust of the
18 testimony of the live witnesses that Microsoft expects to
19 call, beginning with Mr. Garrett Glanz. He's not the first
20 witness, but he's the first one I'm going to talk about. He
21 was Microsoft's representative during the formation of the
22 MPEG LA H.264 pool. He will testify about the formation of
23 that pool and the effort that took place during its formation
24 to balance two key elements:

25 First, the need for royalties high enough to attract the

1 holders of the standard essential patents; and second, the
2 need for the royalties to be low enough to attract licensees.
3 And he will testify to the express recognition, by the
4 participants, in the MPEG LA formation process. The failure
5 to achieve this balance could defeat the H.264 standard in
6 favor of other standards.

7 Mr. Glanz will also testify that Motorola actively joined
8 in these formation meetings and argued for lower royalties,
9 argued for annual caps on total payments, and endorsed the
10 final royalties and caps adopted by MPEG LA, rates far lower
11 than those it is now seeking for its H.264 patents here, and
12 even signed off on the final press release before abruptly
13 declining to join the pool in the eleventh hour.

14 Mr. Glanz will testify that the pool discussions involved
15 a distribution of the total royalties on a pro rata basis in
16 proportion to the number of patents held by each company.

17 Mr. Glanz will testify that Motorola never said, during
18 these meetings, that its H.264 patents were more valuable
19 than those of other pool participants and should merit higher
20 royalties.

21 Professor Kevin Murphy is Microsoft's economics expert.
22 He will testify that enforcement of the RAND commitment,
23 where parties are unable to agree, is essential to avoid
24 hold-up. He will testify that in order to arrive at RAND in
25 this case for the Motorola standard essential patents, the

1 closest analogs and best comparables are two patent pool
2 licenses, including the MPEG LA license I just discussed.

3 He will explain that this is so for several reasons,
4 including the subject matter of the licenses is comparable,
5 the pools address hold-up, they avoid stacking, and they
6 promote widespread adoption of the standard. And that for
7 these reasons they are reliable indicators of a RAND royalty.

8 Professor Murphy will also testify that the RAND
9 obligation, if enforced, serves to keep total royalties at
10 levels that will enable the standard to succeed. This impact
11 of the RAND commitment closely parallels the goals and
12 results of the patent pool process.

13 Timothy Simcoe is Microsoft's expert on standards and
14 standard setting organizations and the economics of
15 standards. He will testify that the intellectual property
16 policies and practices of the standard setting organizations
17 involved in this action, the IEEE and ITU, seek to ensure
18 widespread adoption of the standards that they promulgate.

19 He will testify that the RAND commitments contained in
20 these IP policies, to which Motorola agreed, further these
21 goals. And he will also explain why RAND should be arrived
22 at from an ex ante perspective, before the industry is locked
23 into the standard by its very success, with an eye toward
24 ensuring that the aggregate royalties for all holders of IP
25 that the standards are reasonable.

1 Matt Lynde is Microsoft's patent valuation expert. He
2 will provide calculations of the specific royalties that
3 arise from the evidence and from the application of the
4 analytical framework explained by Professors Murphy and
5 Simcoe.

6 This analysis results in per unit RAND royalties of no
7 more than a fraction of a cent for Motorola's H.264 and a few
8 cents for Motorola's 802.11 portfolio.

9 Jennifer Ochs, who is from Marvell, who supplies the
10 802.11 chips in Xbox to Microsoft, will explain how the
11 royalty proposed by Motorola applies to that chip, which is
12 the smallest salable unit. Ms. Ochs' testimony will show
13 that the terms proposed by Motorola in this case, i.e.,
14 2.25 percent of the end-product price, are both commercially
15 unreasonable and discriminatory.

16 Kirk Dailey is Motorola's Corporate Vice President of
17 Intellectual Property. He will be examined when he's called
18 by Motorola in its case. His testimony will demonstrate that
19 the license agreements that Motorola relies on are not
20 reliable comparables in arriving at RAND royalties for
21 Motorola's standard essential patents here.

22 Gary Sullivan is a Microsoft employee who is the chairman
23 of the group that developed the H.264 standard. That is not
24 a group within Microsoft, but the people who actually
25 developed the standard. He will testify that the technology

1 that Motorola proposed for inclusion during the formation of
2 the standard was limited to interlaced video, and that it was
3 added to the standard after its goals were already largely
4 achieved.

5 Motorola's H.264 technical expert, Michael Orchard, has
6 analyzed Motorola's H.264 patents in detail, and will confirm
7 that they, in fact, mainly relate to interlaced video coding,
8 which is old and currently unimportant technology. And that
9 at most, Motorola's contributions to this standard were,
10 first, a very small part of H.264; second, were incremental
11 to longstanding prior art; and third, the equivalent
12 alternative technical solutions were, in fact, available.

13 Microsoft's 802.11 technical expert, Jerry Gibson, will
14 testify that Motorola's 802.11 patents also relate to only a
15 small portion of the standard. Even in those technical
16 areas, the patents are directed only to a portion of the
17 relevant subject matter, are incremental to longstanding
18 prior art, and that equivalent alternative technical
19 solutions were available.

20 Microsoft will also call fact witnesses to discuss the
21 principal products at issue, and their testimony will show
22 that Motorola patents are tangential to the key functions of
23 the Microsoft products.

24 Leo Del Castillo, Microsoft's General Manager of Xbox
25 hardware, will testify that the core use of the Xbox 360 as a

1 game console does not require either H.264 or 802.11
2 functionality, and that the functionality provided by
3 Motorola's patents is rarely called on in real-world
4 scenarios. He will testify that the 802.11 functionality in
5 the Xbox is provided by the three-to-four dollar chipset
6 acquired from Marvell.

7 John DeVaan, Motorola's Vice President for Windows, will
8 testify that the Windows operating system provides thousands
9 of important features to end-users and developers, and that
10 support for H.264 is but one among these thousands of
11 features.

12 Finally, Your Honor, the analytical approach taken by
13 Microsoft in this case produces reasonable royalties, free
14 from hold-up. By contrast, Motorola seeks to use its limited
15 standard essential portfolios to hold up Microsoft and
16 consumers, as one of its prior experts put it, relying on the
17 simple fact that it takes only one bullet, no matter how
18 small, to kill.

19 Thank you, Your Honor.

20 THE COURT: Thank you. Mr. Jenner, were you goaded
21 into saying anything in response?

22 MR. JENNER: Your Honor will be surprised to hear
23 that I am goaded into reserving my opening until such time as
24 we present our case.

25 THE COURT: All right. Mr. Harrigan, if Microsoft

1 will call its first witness, please. Mr. Cederoth.

2 MR. CEDEROTH: Microsoft will call John DeVaan.

3 JOHN DEVAAN

4 Having been sworn under oath, testified as follows:

5 MR. CEDEROTH: Your Honor, may I approach the
6 witness? I have a couple books.

7 THE COURT: Yes.

8 THE CLERK: Will you state your name for the record
9 and spell your last name, please.

10 THE WITNESS: John DeVaan, D-E-V-A-A-N.

11 DIRECT EXAMINATION

12 BY MR. CEDEROTH:

13 Q By whom are you employed, Mr. DeVaan?

14 A Microsoft Corporation.

15 Q What is your current position with Microsoft?

16 A I am the Corporate Vice President of Development for the
17 Windows division.

18 Q What are your responsibilities in that role?

19 A I oversee the developers that write the program code for
20 the Windows product.

21 Q And how many people work for you today?

22 A About 1,200.

23 Q Let's talk about Windows. What is Microsoft Windows?

24 A Windows is an operating system. And that's the software
25 that provides an abstraction over the hardware, and presents

1 an application interface so that a lot of third parties can
2 write programs that run on the computer.

3 Q Let's break that up just a little bit. What happens when
4 I hit the power button on my computer. What does Windows do?

5 A So when the power button is pressed on the computer, a
6 small amount of software that comes with the actual hardware
7 the computer runs, called the BIOS, or the firmware, and it
8 initializes enough of the hardware that it can read the first
9 parts of the operating system off of the hard disk. And then
10 Windows goes to work and starts initializing the computer.

11 So if you've ever taken the back off your computer and
12 looked at the circuit board, you see all the different chips,
13 and cables, and things like the disk drive inside. So
14 Windows starts a process of loading a small amount of
15 software for each of those hardware devices, called drivers,
16 and initializing the devices one by one. So, the disk drive
17 gets reinitialized for very high thru-put. The graphics chip
18 that creates the images for this screen gets initialized.
19 The chip that controls the screen gets initialized; the
20 ethernet chip or the WiFi chip, if it has one.

21 And Windows initializes all that hardware, in turn, and
22 then builds up its software abstraction for the applications
23 that run on the system. So that an application -- it doesn't
24 need to know the specific brand of CPU, or the specific brand
25 of ethernet chip, the application can access that hardware,

1 those hardware resources in a uniform way.

2 Q So the computer is now ready for the user to use it?

3 A Right.

4 Q I captured a screen shot from Windows 7 that's been marked
5 as Exhibit 4000 as a demonstrative. Can we put that up,
6 please?

7 A Yes.

8 Q Can you explain to the court what this shows and what the
9 use of it is?

10 A What you're seeing on the screen here is the Windows
11 control panel. And it lists some small applications which
12 are available on the computer for the user to control the
13 fine-grain settings of either pieces of the hardware or the
14 programming installed on the computer.

15 Q We've expanded one of these, if I could put up
16 Exhibit 4001 as a demonstrative. This is the device manager
17 setting. Could you explain to the court what this does and
18 what it provides to the user?

19 A The device manager provides a means that enumerates all of
20 those internals of the computer that I was talking about
21 before, and gives the user very fine-grained and very
22 technical access to the features and capabilities of that
23 hardware.

24 Q What is the role of Windows for the hardware components?

25 A So, Windows provides an interface to the hardware that

1 allows those software programs to run. And the software
2 programs can be written once, and work on a wide variety of
3 computers. You know, not every computer has the exact same
4 set of parts, let alone parts of the exact same brand.

5 Q Let's consider applications for a moment. What does
6 Windows do for a software application such as Microsoft Word?

7 A So an application goes through a process similar to what I
8 described for Windows, but at that higher level. So the
9 application is going to ask for access to resources on the
10 computer. So it will ask for a portion of the RAM inside the
11 computer. It will ask for a portion of the screen. So if
12 you're looking at the windows on the display from the last
13 exhibit, you see the device manager has a region of the
14 display and the control panel has a region of the display.

15 So Word, a program like Word is going to go through asking
16 the operating system for access to these resources. And the
17 operating system will balance the requests from all the
18 applications, so that the applications get what they want at
19 the right time. If the resource needs to be taken away and
20 given to another program at some point, the operating system
21 can do that.

22 Q Let's take a step back. How many features are there in
23 any given version of Windows? For example, Windows 7?

24 A So, for each version of Windows we'll add thousands of
25 features. And those features typically build on the

1 thousands of features from the previous release, and the
2 previous release before that.

3 Q Mr. DeVaan, do you know Ed Bott?

4 A I do.

5 Q On the podium there you should have a copy of 1408, which
6 is a Windows Inside Out book that Mr. Bott is one of the
7 principal editors for. And if you flip to Roman numeral 23
8 in there, you can see you're acknowledged as a contributor
9 and supporter of this book. What does this book describe?

10 A So a book like Windows 7 Inside Out is a book -- it
11 describes the basic function of Windows, and with an emphasis
12 on the things which were new in a current Windows version.
13 So there would be a book like this for Windows Vista, for
14 example. So it does cover much of the basic use that's been
15 constant, but basically focuses on what's new and different
16 in Windows 7.

17 Q And Microsoft facilitates the flow of information to Mr.
18 Bott to help prepare this book?

19 A Yes, we do.

20 Q If you could flip, then, to page Roman 7, beginning of the
21 table of contents. This goes on for about 13 pages. How
22 does that list of features and functionalities compare to the
23 work that your team did in building Windows 7?

24 A It gives an overview of many of the new features that we
25 did in Windows 7, along with some amount of the basic usage

1 of Windows itself.

2 MR. CEDEROTH: Microsoft would offer 1408, Your
3 Honor.

4 THE COURT: Any objection?

5 MS. HIGGINS: No objection, Your Honor.

6 THE COURT: It is admitted. It may be published.

7 (Exhibit No. 1408 was admitted into evidence.)

8 Q You also have on the podium there Exhibit 1409, which is a
9 book, Windows Internals. Windows Internals by Mark
10 Russinovich and David Solomon?

11 A Russinovich.

12 Q I was hoping I could do it. Do you know the authors?

13 A I do.

14 Q And in what capacity?

15 A Mark worked for me while Windows 7 was being developed.
16 And David does not work at Microsoft, but I know him in
17 conjunction with the book.

18 Q Are you familiar with this book?

19 A I am.

20 Q And what's the purpose of this book?

21 A Similar to what we just talked about with the Ed Bott
22 book, I'd say the Ed Bott book is focused on things that a
23 person sitting in front of the computer can see. And this
24 book is really for technical people working with the
25 internals of Windows.

1 So if I'm an IT pro supporting Windows, or I'm a
2 programmer writing the device drivers I talked about that
3 come in during the initialization of Windows, you would look
4 to Windows Internals for information for how Windows worked
5 and what was new in Windows 7.

6 Q Again, if you could flip to page Roman 7. And, again,
7 this begins with the table of contents, and in this book goes
8 on for ten pages. How does that list of features and
9 functionalities compare to the work that your team did in
10 building Windows 7?

11 A It's going to highlight, again, the things which are
12 consistent in Windows and how Windows works, with an emphasis
13 on what's new and different for Windows 7.

14 Q Did Microsoft support writing this book?

15 A Yes, we did.

16 MR. CEDEROTH: Microsoft would offer 1409.

17 MS. HIGGINS: No objection, Your Honor.

18 THE COURT: 1409 is admitted.

19 (Exhibit No. 1409 was admitted into evidence.)

20 Q Let's take a step back now. How does Microsoft go about
21 developing a new version of Windows?

22 A We break the work on a new version of Windows into three
23 core phases. The first phase is what we call the design
24 phase. And we take in information from all kinds of parts of
25 the market, customer research, and other factors, business

1 needs, and we do a highly iterative process to come up with
2 what we call the vision and specification for that version of
3 Windows, which then we use, through the development phase,
4 which is the second major phase, where we actually write and
5 test the program code to make the new capabilities
6 functional.

7 And then the third phase the world gets to see, it's a
8 broad public testing phase, with the release of a preview
9 release or a beta, and up to when we create the final what we
10 call "release to manufacturer version" which then PC makers
11 take and build PCs with.

12 Q When it comes down to an individual feature, how does
13 Microsoft decide whether to include a feature or not in any
14 particular version of Windows?

15 A So it's a very iterative process. We start with the
16 information that I was talking about before. And there are a
17 lot of perspectives on that information that we try to
18 resolve.

19 So there's the kind of top-level business and strategic
20 needs from executive management, there are the domain experts
21 which tend to be in what we call the "feature teams" broadly
22 across the 1,200 programmers, and the other engineers that
23 work with them. And so we iterate bringing this top-down
24 perspective and this bottom-up perspective into the final
25 vision for the release.

1 Q Just by way of example, the features and operations
2 described in 1408 and 1409, those were arrived at through
3 that process?

4 A Yes.

5 Q You mention a number of other employees that were
6 involved. In rough numbers, how many Microsoft employees
7 were involved in building Windows 7?

8 A In the Windows division proper, there are about 5,000
9 engineers, and there are also significant contributions from
10 other groups at Microsoft.

11 Q And, again, just in rough numbers, what did it cost to
12 develop and build Windows 7?

13 A So, they don't really tell the engineering managers, but a
14 lot. You know, the 5,000 times six-figure salaries is a lot
15 for three years.

16 Q Something north of a billion dollars?

17 A Certainly.

18 Q Mr. DeVaan, are you familiar with video-coding technology
19 known as H.264?

20 A I am.

21 Q And does Microsoft now include support for H.264 in
22 Windows 7?

23 A Yes.

24 Q What does it mean for Windows 7 to support H.264?

25 A Well, the technical basis is that when a user encounters a

1 video encoded with H.264, Windows is able to either use a
2 chip, one of the hardware devices on the computer, or if
3 that's not available through software, play the video on the
4 screen.

5 Q Is H.264 the only video format supported in Windows 7?

6 A No.

7 Q Does Windows 7 support all the popular codecs today?

8 A We try to support all the popular formats so that people
9 using the computer get the results they expect, which is
10 click on the video and it plays.

11 Q When Microsoft decided to include H.264 support in
12 Windows, how did you build and add that function?

13 A We built that starting with the technology that comes from
14 the standards body, and then used our own engineers to create
15 the process for either offloading to hardware or decoding
16 directly in software.

17 Q Are you familiar that H.264 is articulated as a standard?

18 A Yes. That was an important part of the reason why we
19 chose to do it.

20 Q How did the standard figure in to how Microsoft went about
21 building and creating its version of H.264 in Windows?

22 A So this is in 2006 or thereabouts, and so two things were
23 happening. High definition camcorders were coming to the
24 market, and streaming of video on the internet was popular.
25 And then streaming high definition content was starting to

1 emerge. And what we were interested in is finding and
2 picking the right standard formats to implement, to achieve
3 the philosophy that I was talking about earlier, that when a
4 person using a computer is just on the internet or connects
5 up their camcorder, it works as they expect, the video plays.

6 Q Are you familiar with hardware decoders?

7 A I am.

8 Q What is a hardware decoder?

9 A There are two primary kinds. Sometimes the decoders are a
10 separate chip, so if you look at that circuit board in your
11 computer, you could point to a chip. Often it is a feature
12 of the GPU, which is another chip which controls the graphics
13 display in the computer. And both ways are used to provide
14 hardware decoding support for H.264.

15 Q Does Windows interact with the hardware decoders when it
16 encounters an H.264 file?

17 A It does.

18 Q How so?

19 A Very early on in the video playback process, the hardware
20 is interrogated to see if it has a hardware decoder. And if
21 it does, that hardware decoder is used to play back the
22 video.

23 Q So the hardware decoder is used instead of the Windows
24 code?

25 A Yes.

1 Q Does Microsoft provide computer makers with hardware
2 decoders?

3 A Not that I'm aware of.

4 Q Are you familiar with any other third-party software
5 programs that decode H.264 content?

6 A Yes.

7 Q Can you give me some examples?

8 A So there's a popular download called VLC Media Player, is
9 one example. And I believe Flash also decodes H.264.

10 Q Who provides the codecs for those programs? Does
11 Microsoft?

12 A Microsoft does not. I don't know who does.

13 Q In the course of your work in deciding what features were
14 to be included in Windows 7, what considerations apply to
15 including the H.264 capability?

16 A So, our first concern is the prediction of how popular or
17 how many people are going to want to use a particular
18 capability. And then when it's a situation like video, where
19 it's a very broad world with a lot of people participating,
20 having a standard which we believe will be the most popular,
21 at least over time, is an important asset for us, because
22 then the computer will work for what people want to
23 accomplish for a minimum of work across the ecosystem to try
24 to get things to happen.

25 Q Is it important to Windows to include the H.264

1 standardized technology?

2 A In the way that we try not to do anything unimportant, you
3 know, as I was saying before about the thousands of features
4 that we do, we think all of them are important, and H.264
5 fits there.

6 Q Are you familiar with the term interlaced video?

7 A I am.

8 Q And what's your understanding of interlaced?

9 A So if you think back to grade school when you first
10 learned about images being a collection of dots, you think of
11 the dots are arranged in rows on the screen. And interlaced
12 is a process where alternating sets of rows of dots get
13 played one at a time. And it's a mechanism that goes way,
14 way, way back to the earliest broadcast TV, to basically make
15 the amount of data you're sending at any instant in time be
16 less than sending the whole picture at that instant in time.

17 Q The different lines of that picture are interwoven in the
18 final result?

19 A In the blink of the TV monitor you'll get one set of
20 lines, then the next set of lines, alternating.

21 Q And is the display on my Windows 7 laptop, is that an
22 interlaced display?

23 A No, it is not.

24 Q Do you know whether computers, in general, use interlaced
25 displays?

1 A Interlaced displays are going by the wayside. Pretty
2 much, if you have an LCD display, it's called a progressive
3 display, not interlaced.

4 Q In deciding what features and capabilities to include in
5 Windows, did your teams develop any understanding of the
6 nature of the video content available on the web today?

7 A Yes, we did.

8 Q And based on that understanding, how important is it for
9 Windows to be able to decode interlaced content?

10 A Not very important.

11 Q Why is that?

12 A There isn't a lot of content that uses interlaced format.
13 If you think of -- when someone is sitting down to compress a
14 video for distribution, there are a lot of tactics that they
15 can use for compression. Interlaced is one of them. And it
16 just doesn't get used very often.

17 Q Then why does Microsoft support interlaced video in its
18 H.264 technology within Windows?

19 A Well, it's part of the standard. And going back to that
20 philosophy of a video file, click on the video file, that it
21 should play, it's important for us to support the standard.

22 Q Are you familiar with a technology known as 802.11?

23 A I am.

24 Q And does Microsoft's Windows 7 product provide any sort of
25 support for 802.11?

1 A It does.

2 Q In what way?

3 A Going back to what I was talking about when the computer
4 starts up, the 802.11 functionality is provided by a WiFi
5 card or WiFi chip in the computer, if it has one. And in
6 that same process of initializing the hardware, Windows will
7 load the driver for the WiFi chip, and then that will provide
8 an abstraction for applications to do its networking over
9 WiFi through the chip.

10 Q So Windows provides the user interface?

11 A Yes.

12 Q In the absence of the WiFi chip you mentioned, does
13 Windows provide any 802.11 functionality?

14 A There is some very narrow aspects of wired networking
15 that's called 802.11. But in general, no.

16 Q But no over-the-air wireless broadband?

17 A Correct. Correct.

18 Q Is it important for Microsoft that Windows support 802.11?

19 A I would say the same way -- we were just talking about
20 H.264. It's clearly a standard, and people expect Windows to
21 operate in conjunction with the standard.

22 Q How does the value of support for 802.11 in Windows
23 compare to the value of the other features that are described
24 in the books?

25 A It's really hard to give a specific value on any one of

1 the features over the other. It is going to depend on what
2 people want to do. For a desktop computer there's very
3 little value to 802.11 WiFi. So it's going to vary a lot.
4 So it's hard to write one over the other.

5 Q A couple questions on a new product, just a few. Are you
6 familiar with the new Microsoft product called Surface?

7 A I am.

8 Q What is that product?

9 A It's a computer, in a tablet form factor, that runs a
10 version of Windows called Windows RT. And it's designed to
11 be a great tablet, in the tablet form factor. And the unique
12 things that Microsoft brings to this part of the market is
13 it's not just a tablet, it is a computer. You can click up
14 the kickstand and lower the cover and there's a keyboard
15 there. So you might have enjoyed reading your e-mail on the
16 tablet, but it's time to open a Word document and actually do
17 some work. And that's a unique take on the tablet that the
18 Surface brings.

19 Q Does that also include touchscreen technology?

20 A It does.

21 Q Is that an important aspect of the Surface experience?

22 A Yes, it is.

23 Q Does Surface support H.264?

24 A Yes, it does.

25 Q Is it important for Microsoft that the Surface support

1 H.264?

2 A On the basis we've been talking, you know, as one of the
3 capabilities that it has, yes.

4 Q Okay. Is that in relation to the standard?

5 A Well, it's important that -- the standard is what makes
6 H.264 important. That means there will be content in the
7 world, and people will expect the content to play when they
8 use the Surface.

9 Q Does the Surface include 802.11 functionality?

10 A It does.

11 Q How does it provide the 802.11 functionality?

12 A It's a computer, so it's exactly as I've described before,
13 Windows RT loads the driver for the WiFi chip and provides
14 WiFi functionality that way.

15 Q So it relies upon the presence of the WiFi chip?

16 A Yes.

17 Q Okay. Is it important for Microsoft that the Surface
18 include 802.11 functionality?

19 A In the notion that 802.11 and WiFi are standards for
20 connectivity, yes.

21 MR. CEDEROTH: Pass the witness, Your Honor.

22 CROSS EXAMINATION

23 BY MS. HIGGINS:

24 Q Good morning, Mr. DeVaan.

25 A Good morning.

1 Q So you testified that Windows does support H.264, correct?

2 A Yes.

3 Q And that goes for both Windows 7 and Windows 8?

4 A Yes.

5 Q And, in fact, that's also true with respect to newer
6 versions of Windows Vista, correct?

7 A Newer versions of Windows Vista, I'm not familiar that
8 that's true.

9 Q Okay. Now, media foundation, you know what that is,
10 correct?

11 A Yes.

12 Q That's an area of the Windows code that has to do with
13 media processing and display, correct?

14 A Yes.

15 Q Media foundation is included in both Windows 7 and
16 Windows 8, correct?

17 A Yes.

18 Q And, in fact, media foundation includes both an H.264
19 decoder and an H.264 encoder, correct?

20 A Yes.

21 Q Now, the media foundation H.264 decoder supports the
22 Baseline, Main and High profiles of the H.264 standard up to
23 level 5.1, correct?

24 A I'm not going to be expert enough to answer with that
25 level of precision. So I don't know.

1 Q Can we bring up Exhibit 2042, please? I believe there's a
2 binder up there, sir, if you would also like to look in your
3 binder at Exhibit 2042. And it's also published on the
4 screen. Let me know when you're ready.

5 A I have it in front of me.

6 Q This is a document titled H.264 decoding. Do you see
7 that?

8 A Yes.

9 Q This is a document from Microsoft's Windows MSDN website,
10 down at the bottom?

11 A I'm sorry, I didn't bring my glasses. But,
12 msdn.microsoft.com, yes.

13 Q At the top of the document it states that, "The media
14 foundation H.264 video decoder is a media foundation
15 transform that supports the decoding of Baseline, Main, and
16 High profiles up to level 5.1." Do you see that?

17 A I do, and it does say that.

18 Q Do you believe that's the case, sir?

19 A My firsthand knowledge is hard, but I would believe if
20 MSDN says it, it's true.

21 Q Okay. Then Internet Explorer 9, that's a Microsoft
22 browser, correct?

23 A Yes.

24 Q And if Internet Explorer 9 uses the media foundation API,
25 that's an application programming interface, in Windows to

1 decode H.264, correct?

2 A Yes.

3 Q And within Windows 7 there's also Windows 7 Media Player,
4 correct?

5 A Yes.

6 Q And the Windows 7 Media Player uses the media foundation
7 API in Windows to decode H.264, correct?

8 A There are some differences, but basically, yes.

9 Q Now, if you would, I believe that you still have a copy up
10 there of 1408. Could you pick up that book? It's the
11 Windows 7 Inside Out book. Yes, sir.

12 Now, if you would, Mr. Cederth had directed you to the
13 table of contents. And I'd ask you to turn to table of
14 contents part 3, which is titled "digital media"?

15 A Okay.

16 Q You see that there?

17 A Yes.

18 Q And there's three chapters there, chapters 12, 13 and 14,
19 that are devoted to digital media, correct?

20 A Yes.

21 Q Now, turn if you would to page 408.

22 A Okay.

23 Q There's a section there that discusses which file formats
24 and codecs are supported in Windows 7, correct?

25 A Yes.

1 Q And on the next page there's a table labeled, "File
2 formats newly supported in Windows Media Player 12." You see
3 that?

4 A Yes.

5 Q Then underneath there there's two file types, AVC HD
6 video, correct?

7 A Yes.

8 Q And that's a file type that you're familiar with, sir,
9 correct?

10 A Yes.

11 Q Camcorders use that?

12 A Yes.

13 Q And there's also another one, MP4 video. Do you see
14 that?

15 A Yes.

16 Q And both of those file types state that these container
17 formats are typically used -- typically use the H.264 video
18 compression codec, correct?

19 A Correct.

20 Q Let's turn to the next page, the next page, 410, at the
21 top, has a first paragraph that discusses adding an updated
22 codec. Do you see that?

23 A Yes.

24 Q There was some of your testimony was talking about
25 hardware or third-party codecs versus the native H.264

1 decoder, correct?

2 A I'd say it a little differently. There's the hardware
3 decoder, and then the Windows native software decoder for
4 H.264.

5 Q Okay. Now, would you agree that the first paragraph here
6 is discouraging Windows 7 users from downloading and
7 installing third-party codecs?

8 A Give me a moment to read it.

9 Q Sure.

10 A It describes some downsides to installing your own codecs.

11 Q It warns users who install third-party codecs that, "You
12 do so at your own risk. A buggy codec can cause the player
13 to crash, freeze, or suffer reduced performance." Correct?

14 A Yes.

15 Q Now, let's turn to your two demonstratives that you used
16 during your direct testimony. Now, demonstrative 4000, you
17 labeled sample Windows 7 control panel, correct?

18 A I don't see a label "sample."

19 Q Right up at the top of the screen, sir.

20 A At the top. I'm looking only at the screen.

21 Q Okay. Now, in your sample Windows 7 control panel, there
22 are applications that aren't part of Windows 7, correct?

23 A Correct.

24 Q And, in fact, none of the Accumine -- they're highlighted
25 here -- Flash Player, Adobe version Cue CS4, iCloud, Java and

1 Quicktime.

2 A Can you go through your list again, please?

3 Q Sure. Accumine, Flash Player, Adobe version Cue, iCloud,
4 Java and Quicktime.

5 A Those are not Windows components.

6 Q Let's turn to the blowout demonstrative 4001, please.

7 And I'll direct your attention to where it says, device
8 manager.

9 A Yes.

10 Q Then over on the left it refers to display adapter. Do
11 you see that?

12 A Yes, I do.

13 Q It says VMware SVGA 3D? Do you see that?

14 A Yes, I do.

15 Q There is no hardware accelerator listed on the display
16 adapter, correct?

17 A In this case, no.

18 Can I think about that just for a second? I don't know
19 the details of what VMware does in their video display
20 driver, so it might or might not have direct hardware in the
21 host operating system backing it.

22 Q But it doesn't list a hardware accelerator there, correct?

23 A It does not.

24 Q Windows 7 was the first version of Windows to support
25 H.264 natively, correct?

1 A Yes.

2 Q And prior to Windows 7, support was provided only by these
3 third-party codecs, correct?

4 A Correct.

5 Q And third party add-on is an additional program that
6 somebody is going to install, correct?

7 A Yes.

8 Q And third party add-ons you found during that first phase
9 that you discussed during your direct testimony was not
10 delivering the quality, safety, and seamlessness that the
11 end-user really expected, correct?

12 A I don't think I said that in my opening testimony. But I
13 think it's correct, yes.

14 Q Okay. End-users desire the content they want to just work
15 and not have the technical hassles to do what they want to
16 do, correct?

17 A Correct.

18 Q And during that first phase that you were discussing,
19 Microsoft's view was that customers needed to be able to rely
20 on playing high definition video reliably, correct?

21 A Correct.

22 Q In fact, Microsoft put native support for H.264 in
23 Windows 7 because it wanted to include it as a standard for
24 playing high definition content and to relieve the end-user
25 from having to go to the hassle and risk of installing H.264

1 from a third party, correct?

2 A I would say because it is a standard; and correct
3 otherwise.

4 Q Okay. During your direct testimony I believe you referred
5 to the design phase, and you talked about a vision and
6 specification for that version of Windows that you were
7 working on, correct?

8 A Correct.

9 Q Now, internally within Microsoft, Microsoft has something
10 that it refers to as pillars of Windows 7, correct?

11 A Yes.

12 Q And these are sort of top-level themes for that vision for
13 the product, correct?

14 A Correct.

15 Q And one of the key pillars of the Windows 7 vision was to
16 enable Microsoft to provide customers with an inbox solution
17 to view both the playback of broadcast video content, as well
18 as live video content, correct?

19 A I'm not remembering that that was a pillar. I'd have to
20 refer to the vision document to review that.

21 Q Let's bring up Exhibit 2739, please. Can you look at it
22 on the screen or binder, sir?

23 A Which was the number?

24 Q 2739.

25 A Okay.

1 Q And first of all, this is a functional specification for
2 Windows 7, correct?

3 A Yes.

4 Q Okay. And I'll direct your attention to page 942600.

5 A In the lawyer numbers?

6 Q In the lawyer numbers.

7 A 942 -- mine are all 944.

8 Q 944 -- I'm sorry. 944788. Sorry, sir.

9 A That's the first page.

10 Q Okay. And so this is the functional specification for
11 Windows 7, correct?

12 A Um, I believe so, yes.

13 Q Let's turn to page 944791. And I direct your attention to
14 right underneath the "Value Prop and Business Rationale," it
15 states there, "This feature will implement one of the key
16 pillars of the Windows 7 vision of enabling Microsoft to
17 provide customers an inbox solution to view both the playback
18 of broadcast video content, as well as live broadcast video
19 content." Do you see that, sir?

20 A I see that.

21 Q This was, indeed, one of the Windows 7 visions during the
22 design and development of Windows 7, correct?

23 A So we implemented it, and I'm not sure that the language
24 in the spec, which is the very detailed feature team
25 document, did necessarily get reflected as a pillar in and of

1 itself. But all the features roll up to a pillar of the
2 vision.

3 Q That's what the program managers wrote there though,
4 correct, sir?

5 A It is.

6 Q And, in fact, under key success metrics for this feature,
7 one of the key success metrics that is listed is playback of
8 new file types, including H.264, correct?

9 A Yes.

10 Q Okay. While we're in the specification, let's turn to
11 944792.

12 A Okay.

13 Q And I direct your attention to the top of the page.
14 There's some information there on broadcast and H.264. Do
15 you see that?

16 A Yes.

17 Q And this document reports that DirecTV, all DirecTV local
18 HD content will be broadcast in H.264, do you see that?

19 A Yes.

20 Q And in fact it says, for BSkyB, all BSkyB HD content will
21 be broadcast in H.264, correct?

22 A Yes.

23 Q And Canal-plus, all Canal-plus HD content is in H.264, it
24 says that as well, correct?

25 A Yes.

1 Q There was some direct testimony about hardware and
2 hardware acceleration, correct?

3 A Yes.

4 Q It's true, sir, when media foundation cannot locate a
5 hardware accelerator, it will use the software decoding,
6 correct?

7 A That's correct.

8 Q And, in fact, for H.264, that hardware acceleration could
9 be enabled or disabled, correct?

10 A Yes.

11 Q I want to turn to your testimony regarding the Surface
12 tablet.

13 A Okay.

14 Q With respect to the Surface tablet, the only internet
15 connection for the Surface is 802.11, correct?

16 A The only built-in, yes.

17 Q And there's no ethernet port, correct?

18 A There is no ethernet port.

19 MS. HIGGINS: Pass the witness.

20 Your Honor, I offer for evidence Exhibit 402 and 2739.

21 THE COURT: Any objection?

22 MR. CEDEROTH: Not on 2739, Your Honor.

23 MS. HIGGINS: 2042 and 2739.

24 MR. CEDEROTH: And not on 2042.

25 THE COURT: They're admitted.

1 (Exhibit No. 2042 and 2739 were admitted into evidence.)

2 REDIRECT EXAMINATION

3 BY MR. CEDEROTH:

4 Q Mr. DeVaan, counsel went through a list of software
5 decoders, including Flash, I think, that were displayed on
6 the control panel?

7 A Yes.

8 Q Do you have an understanding as to whether these are
9 widely used on Windows-based PCs or laptops?

10 A Which exactly, the Flash, you're asking?

11 Q For example, Flash.

12 A Flash is very broadly used.

13 Q And when they are present, what is normally used for
14 decoding H.264 content? Is it Flash? Is it hardware on the
15 computer? Is it Windows or some other option?

16 A It's going to depend upon how the user accessed the
17 content. So I would say the most popular way through a web
18 browser to a site like YouTube would typically use Flash.
19 It's beginning to use H.264, but I think most people who
20 navigate there would use Flash.

21 Q And is Flash one of the buggy third-party codecs counsel
22 was referring to?

23 A No.

24 MR. CEDEROTH: No further questions, Your Honor.

25 MS. HIGGINS: No questions, Your Honor.

1 THE COURT: I have some for you.

2 THE WITNESS: Okay.

3 EXAMINATION

4 BY THE COURT:

5 Q Now that you've taken us through high school, we'll go
6 back to elementary.

7 Did I understand that if you have an -- what I'll call
8 an application, let's say Blu-ray, it would incorporate the
9 H.264 standard and a user could access the standard through
10 that application; is that correct?

11 A That's correct. So usually when you get a computer with a
12 Blu-ray drive, it will include an application like CyberLink
13 or Total Media Center, which is -- those are third-party
14 programs that use their own codecs to play back the Blu-ray.

15 Q So the responsibility, then, of the creator of that
16 application would be to obtain access to the H.264 standard?

17 A They do. In theory, you could write so that it would just
18 use the Windows, but they all seem to bring their own.

19 Q And what is the advantage or disadvantage of doing it one
20 way or the other?

21 A I think it's the ability to make sure on the very, very
22 broadest number of PCs, because these programs are trying to
23 support not just Windows 7, but Windows Vista, and Windows XP
24 where Windows doesn't have the support. So it's just easier
25 for them from a product-support standpoint to include it

1 themselves.

2 Q All right. And what is Microsoft's view -- you've
3 described that as an add-on. Would that be discouraged
4 because of potential user problems?

5 A Coming from a reputable source like these application
6 vendors, we wouldn't discourage it. It's the "Type-in the
7 search box on the internet and find a place that's
8 advertising codecs," that we wouldn't recommend.

9 Q Just so my notes are complete, does Windows Media Player
10 support H.264?

11 A On Windows 7 and Windows 8, yes.

12 Q At one point you talked about the significance of H.264 to
13 the Microsoft products, generally. And you've described it
14 as equivalent to all the other features. Would you explain
15 that answer for me?

16 A So, when we're going through the design phase for a
17 version of Windows, we only have so many people to do the
18 work. And so we're going to trade and pick the things which
19 are most valuable to do, that we think are most valuable for
20 the people that are going to use Windows.

21 And so in that standpoint we do make decisions about, you
22 know, should we have these people do H.264, or should we have
23 them do memory size reductions, or other things that might
24 benefit people in other ways.

25 Q Is that prioritization recorded somewhere, or is that just

1 in terms of assignments that you're giving to your software
2 writers?

3 A At the high level it's the vision document that we talked
4 about. So counsel was talking about pillars, which is the
5 very top-level outline of what we're going to do. Then the
6 outline eventually becomes completely expanded in the
7 specification, like was given in one of the exhibits.

8 Q Final area. I think I understand interlaced and
9 progressive. Does H.264 encode progressive also?

10 A Yes.

11 Q Why, then, if the standard does both, is it important to
12 draw this distinction that everyone seems to think is
13 important?

14 A Between progressive and interlaced?

15 Q Yes.

16 A So, I think that the ability of progressive to deliver a
17 superior picture is an important consideration, because there
18 are times where in the interlacing the picture can start to
19 look flickery, depending upon the monitor quality and other
20 things. And you don't get that with progressive.

21 Q But if the standard which you now are using allows both,
22 why does it make a difference that either one is used over
23 the other?

24 A Well, the objective is for the end-user to not know
25 anything about it. And in that case it doesn't matter at all

1 to the end-user.

2 But if you're the network operator, we're talking about
3 DirecTV, and they care because they want to deliver
4 high-quality picture that people see, and use the smallest
5 amount of data size so that they can have capacity for more
6 channels. And the tradeoff in the world is pretty much
7 overwhelmingly progressive for picture quality.

8 Q Your ability to access progressive is still based on an
9 access to the H.264 standard?

10 A Yes. There are other video formats that have progressive
11 also, but most H.264 files are progressive.

12 Q In terms of the Motorola patents that are part of the
13 H.264 standard, do they go to both progressive and
14 interlaced, or solely to interlaced?

15 A Somebody else can answer that better for you than I can.
16 But my understanding is interlaced only. But I don't know
17 for sure.

18 THE COURT: All right. Mr. Cederoth, any further
19 questions?

20 MR. CEDEROTH: Your Honor, as tempted as I am to
21 cross examine the witness after your direct, we have no
22 further questions.

23 THE COURT: Counsel?

24 MS. HIGGINS: No further questions, Your Honor.

25 THE COURT: You may step down. Thank you very much,

1 sir.

2 Counsel, why don't we take our break at this time and
3 we'll start at twenty minutes to eleven with a fresh witness.
4 And that will be who?

5 MR. HARRIGAN: Mr. Glanz, Your Honor.

6 (Court recessed.)

7

8 THE COURT: Mr. Harrigan, your next witness, please.

9 MR. HARRIGAN: Microsoft calls Mr. Garrett Glanz.

10 Whereupon,

11 GARRETT GLANZ

12 called as a witness, having been first duly sworn, was
13 examined and testified as follows:

14 THE CLERK: Will you state your name for the record
15 and spell your last name?

16 THE WITNESS: Garrett Glanz, spelled G-L-A-N-Z.

17 DIRECT EXAMINATION

18 By Mr. Harrigan:

19 Q Mr. Glanz, are you employed by Microsoft?

20 A I am.

21 Q What is your current position?

22 A I am a general manager of licensing in the intellectual
23 property group.

24 Q Licensing of what?

25 A Licensing of Microsoft's patents, in particular.

1 Q Any particular category of patents, or just all patents?

2 A All patents.

3 Q And how long have you been in that position?

4 A I have been in that role just over two years.

5 Q And how long have you been at Microsoft?

6 A I have been at Microsoft for just over twelve years.

7 Q Could you -- So you started in 2000, approximately?

8 A That's correct.

9 Q And would you give the court just a brief synopsis of your
10 positions and responsibilities at Microsoft from 2000 until
11 you assumed your current job in 2010?

12 A When I joined in 2000, I was a business development
13 manager in the Windows Digital Media division. And in that
14 role I was responsible for both inbound licensing of various
15 technologies and metadata, as well as the outbound licensing
16 of the Windows Media technologies. As well in that time, I
17 was Microsoft's representative to the MPEG LA patents pool
18 meetings.

19 Q Is that the only patent pool you had involvement with --
20 that you had involvement with during that time?

21 A I was involved with both the MPEG-4 visual patent pool,
22 the H.264 patent pool and the AVC-1 patent pool that
23 followed.

24 Q And the first two you mentioned are both MPEG LA pools?

25 A That's correct.

1 MR. HARRIGAN: Your Honor, we have a demonstrative
2 exhibit, which is number 4002, which is in the notebook that
3 you should have in front of you there somewhere, in I think
4 the first tab, which is a timeline.

5 By Mr. Harrigan:

6 Q Mr. Glanz, could you tell the court briefly what this
7 timeline depicts?

8 THE COURT: Mr. Jenner, who will be doing your cross?

9 MR. McCUNE: I will be, your Honor.

10 THE COURT: Do you have a copy of this?

11 MR. JENNER: I do.

12 THE WITNESS: This timeline shows, starting at the
13 formation of the MPEG LA visual pool through the
14 standardization of H.264, the initial meetings of the MPEG LA
15 H.264 patent pool, all the way through the subsequent press
16 releases announcing the terms of the pool, and finally ends
17 with Microsoft's signature on the pool agreements, and then
18 when we learned about Motorola's decision not to join the
19 pool.

20 By Mr. Harrigan:

21 Q Okay. So just briefly, the first thing here is MPEG-4
22 patent, November 2002. What is the relationship between the
23 technology dealt with by MPEG-4 and the technology dealt with
24 by MPEG LA H.264, if any?

25 A MPEG-4 visual was an earlier video codec technology, that

1 had been standardized, and ultimately a pool formed around it
2 just subsequent to 264. 264 was the successor technology, if
3 you will, to the MPEG-4 visual.

4 Q So the first meeting of the MPEG LA H.264 pool occurred in
5 the same year as the formation of the -- the completion of
6 the MPEG-4 pool?

7 A According to this timeline, the MPEG-4 pool ended the end
8 of November 2002, and the first meeting of the H.264 pool was
9 June of 2003.

10 Q Thanks. And this timeline indicates that H.264 was
11 adopted -- was actually adopted when?

12 A It was adopted as a standard in May of 2003.

13 Q And then the first MPEG LA meeting with respect to that
14 pool occurred a short time later, July --

15 A Actually, June 23rd.

16 Q June 23rd, thank you. Could you describe for the court
17 what the general process was for the formation of the MPEG LA
18 H.264 pool? In other words, what was the procedure by which
19 various people got together and discussed the things they
20 needed to discuss in order to arrive at a patent pool around
21 that standard?

22 A Typically around the time that a standard was finalized,
23 MPEG LA would put out a call for patents, indicating that any
24 company which held essential patents was invited to
25 participate in pool licensing discussions. So they did that.

1 And then subsequently, an initial meeting would be called.
2 And MPEG LA would facilitate then the negotiations among the
3 essential patent holders, and ultimately drive consensus
4 towards a licensing model and agreements, and then launch a
5 licensing program based on the terms that the pool had agreed
6 to.

7 Q Okay. So were there a series of meetings then in the
8 spring, summer and fall of 2003, among all of these people?

9 A Yes.

10 Q And did you attend those meetings?

11 A I did.

12 Q Then, even though it is a little bit -- Once the
13 licensing system and the royalties and so forth are all
14 agreed on, could you just describe for the court what
15 MPEG LA's role is at that point, once their licensees are
16 signed up and the royalties have been determined?

17 A Sure. Once the pool launches and licensees begin to sign
18 up, MPEG LA will then collect the royalties reported by the
19 different licensees and distribute the royalties amongst the
20 different licensors.

21 Q And is there a set system for distributing the royalties?

22 A Yes, there is.

23 Q Without going into the nitty-gritty details, basically how
24 does that work?

25 A So the royalty distribution is based on a formula, taking

1 into account the revenues generated and the total number of
2 patents contributed to the pool, and basically splitting up
3 the royalties per licensor based on the number of patents
4 they had contributed.

5 Q So it is just an arithmetic proportion based on the total
6 number of patents in the pool and the number of patents held
7 by individual companies?

8 A That's correct.

9 Q With no doubt some other qualifications, but that's the
10 basic idea?

11 A Yes.

12 Q And when you attended these meetings, were you doing so as
13 Microsoft's representative?

14 A Yes, I was.

15 Q At the time of the initial MPEG LA H.264 meeting, how
16 widespread was the implementation of H.264?

17 A H.264 was still in a very early stage of adoption and
18 deployment. Companies were in many cases working on their
19 implementations, but there were not a large scale -- a large
20 number of commercial products out in the market at that time.

21 Q And at the time that the MPEG LA H.264 pool was starting
22 to coalesce in roughly the spring of '03, were there
23 competing technologies performing functions similar to that
24 the H.264 was set up to perform?

25 A Yes, there were a number of competing video codec

1 technologies, including MPEG-4 visual, which was the
2 precursor standard, as well as some proprietary technologies,
3 such as real video from RealNetworks, as well as Windows
4 Media video, which was Microsoft's proprietary solution.

5 Q What did Microsoft's proprietary solution do?

6 A Similar to H.264, it compressed video streams for
7 distribution over the internet, for example, to PCs and other
8 types of devices.

9 Q Would you turn in your notebook to Exhibit 1584, which
10 should be the next one in the book after the timeline?

11 This exhibit is entitled "News Release." It is dated
12 November 17, 2003 at the beginning of the text. What is this
13 exhibit?

14 A This is a press release by MPEG LA, announcing that the
15 H.264 patent pool had met and had agreed on licensing terms
16 for the technology.

17 Q So this was kind of the announcement that the people who
18 had been attending all these meetings that we are about to
19 get into in more detail had reached consensus on what?

20 A On the specific licensing terms for the H.264 technology.

21 Q And the second line here says, "The essential H.264 MPEG-4
22 AVC patent and patent application holders have reached
23 agreement on the terms of a joint patent license for
24 implementation and use," et cetera.

25 Is that an accurate statement based on your attendance

1 at the meetings?

2 A Yes.

3 Q And does this exhibit accurately set forth in the second
4 page what the royalties were that had been agreed upon at
5 this point in time for decoders and encoders?

6 A Yes, it does.

7 Q Would you recap for the court briefly -- run through and
8 tell the court basically what this first part of Page 2 is
9 telling us regarding decoder and encoder royalties?

10 A So the essential patentholders agreed that for H.264
11 codecs the royalty rate would start at 20¢ per unit after the
12 first 100,000 units, meaning the first 100,000 units were at
13 no charge. And above 5 million units the per codec rate
14 would drop to 10¢ per unit. Furthermore, there was agreement
15 that there would be an annual cap on the royalties paid,
16 starting at \$3.5 million, and scaling up to \$5 million over
17 the term of the license agreement.

18 Q And then the third paragraph is rather long. Can you just
19 tell us briefly -- give us a paraphrase of what that is
20 about?

21 A So the third paragraph describes the annual caps available
22 to companies who would be paying on behalf of PC OEMs. For
23 example, to the extent that Apple, let's say -- Actually,
24 Apple is not a good example. To the extent that Microsoft
25 puts an H.264 codec into Windows, this cap would allow

1 Microsoft to pay and not pass a royalty liability down to PC
2 OEMs.

3 Q And then the last paragraph deals with the grace period?

4 A That's right. MPEG LA -- The patentholders agree to
5 allow MPEG LA to offer a royalty-free grace period for
6 companies that signed up before a certain point in time.

7 Q And then we don't need to discuss it, but just tell the
8 court basically what is covered under the next section,
9 "Participation Fees." What is that about?

10 A Participation fees were royalties due for the distribution
11 of content in the H.264 technology. So it was for websites,
12 for DVD distributors that might use the technology.

13 Q And does this exhibit also indicate the identity of the
14 companies who had cooperated in arriving at these terms? And
15 I'm referring to the first full -- first paragraph after the
16 bullets on Page 3.

17 A Yes, the press release lists the companies that had agreed
18 to these terms.

19 Q And is Motorola included in that list?

20 A Yes, it is.

21 Q And had Motorola agreed to these terms, based on your
22 attendance at the meetings?

23 A Yes.

24 Q Was there another organization at the same time, that is,
25 back in the spring and summer of '03 -- was there another

1 organization besides MPEG LA that was working on an H.264
2 patent pool?

3 A Yes, Via Licensing had also made a call for patents and
4 was attempting to form a patent pool for H.264.

5 Q And did you participate in the Via Licensing meetings
6 also?

7 A Yes, I did.

8 Q Did Motorola participate in the Via Licensing meetings?

9 A Yes.

10 Q Who was Motorola -- I don't know if I specifically asked
11 you, but Motorola participated in the MPEG LA H.264 meetings
12 also, right?

13 A Yes.

14 Q Who was Motorola's representative in those two
15 organizations?

16 A Paul Bawel.

17 Q That's B-A-W-E-L?

18 A That's correct.

19 Q Why did you participate in both potential patent pools?

20 A At the time it wasn't clear which of those pools would
21 ultimately be successful to bring a license to market. So
22 from Microsoft's perspective, because we felt that it was
23 important to have a functioning patent pool for the
24 technology, we thought it was useful to participate in both
25 to understand and ultimately join the pool that was

1 successful.

2 Q And so Via was more or less a competitor of MPEG LA?

3 A Yes.

4 MR. HARRIGAN: We will offer 1584.

5 MR. McCUNE: No objection.

6 THE COURT: It will be admitted and may be published.

7 (1584 admitted.)

8 By Mr. Harrigan:

9 Q Would you describe for the court what the process was at
10 MPEG LA for seeking to arrive at agreed royalty rates and
11 other elements of the royalty structure? How was it run?
12 How did they organize arriving at a consensus?

13 A MPEG LA would convene the meetings, and would drive the
14 agenda, which was typically comprised of a strawman licensing
15 proposal that MPEG LA would put on the table to drive
16 discussion among the patentholders, and ultimately tried to
17 achieve consensus on the key terms. As part of those
18 discussions, MPEG LA would go around the room and ask each
19 company to state specifically its position on the strawman,
20 including any adjustments that those companies would choose
21 to make to that strawman.

22 Q What were the main topics of discussion?

23 A The primary topics for the H.264 pool discussions revolved
24 around the relative level of the per codec royalties, whether
25 there should be annual caps applied to those, and as well

1 whether use fees or participation fees were a key component
2 of the overall licensing structure.

3 Q How did a company get to be one of the outfits
4 participating or represented at these meetings?

5 A In order to participate in the discussions, a company
6 would either need to have an issued patent or an application
7 that was deemed essential to the H.264 standard.

8 Q Who decided whether something that was submitted as the
9 entry ticket was essential or not?

10 A MPEG LA designated an external expert to do the
11 evaluations of the patents and applications submitted.

12 Q And was it sufficient to have one patent or one
13 application that was deemed to be essential in order -- as
14 your ticket to entry?

15 A That's correct. Most companies only submitted a single
16 patent or application in order to participate.

17 Q Even if they may have had others?

18 A Right.

19 Q So all of the participants were potential licensors of the
20 H.264 technology?

21 A That's correct.

22 Q And how about licensees, were any licensees at the
23 meetings?

24 A In fact, many of the companies holding essential patents
25 as licensors would also be licensees of the technology.

1 Q For example, who?

2 A For example Microsoft, Sony, Motorola.

3 Q And why were they -- It is probably obvious, but why were
4 they both potential licensors and licensees?

5 A Those companies I just cited all had products which
6 ultimately would benefit from the H.264.

7 Q And also happened to have phones, and at least one SEP?

8 A Correct.

9 Q What were the Motorola products that made it a potential
10 licensee?

11 A Motorola both distributed -- built and distributed mobile
12 phones, as well as set-top boxes.

13 Q And how about Microsoft?

14 A Microsoft had Windows, which of course could integrate
15 H.264, as well as other products like Xbox.

16 Q So I think you said that a strawman would be put up, and
17 then -- it may be slightly repetitious, but did people
18 immediately express their views on that, or was it preceded
19 by some other discussion, or how did that work?

20 A Typically a strawman was put on the table by MPEG LA,
21 there would be a period of ad hoc conversation where
22 companies maybe provided some initial reaction, threw out
23 some ideas on how to refine it, but then there was usually a
24 more formal portion where MPEG LA again went around the room
25 and asked each company specifically what their view on the

1 proposal was.

2 Q And with respect to the part of the meeting where they
3 went around and asked each company their specific views on a
4 strawman, did you take notes of those events?

5 A Yes, I did.

6 Q And was it a standard business practice of yours to do
7 that?

8 A Yes.

9 Q Did you do it in the ordinary course of performing your
10 Microsoft duties?

11 A Yes, I did.

12 Q Did you accurately record what was stated by these
13 participants?

14 A Yes.

15 Q How thoroughly did you record that information?

16 A I took very detailed notes of the proceedings.

17 Q And what use did you actually make of these notes, in
18 terms of your Microsoft work, besides simply recording what
19 happened?

20 A I took those notes so that I could then go back and inform
21 and update our executives on how the discussions were
22 progressing, and also then drive sort of our internal
23 decision process around our participation in the pool.

24 Q To whom did you -- who were the people that you
25 immediately dealt with, with respect to these topics?

1 A At Microsoft?

2 Q Yeah.

3 A At the time I was dealing directly with my manager Bill
4 Spencer, as well as the head of the Windows Client Group,
5 Will Poole.

6 Q What was the mechanical method by which you took the
7 notes?

8 A I had a tablet PC that had a pen input, so I was able it
9 handwrite notes on my PC screen which were then captured
10 digitally.

11 Q Where did you maintain the notes once you had taken them
12 and made whatever use of them you made with respect to
13 management activities?

14 A I saved them on the hard drive of my laptop.

15 Q And you have already said that Motorola was at these
16 meetings. Did you record Motorola's observations and
17 comments on the various strawmen in these notes?

18 A Yes.

19 Q And the other companies' as well?

20 A Absolutely.

21 Q Please turn to Exhibit 1139, which should be the next one.
22 Can you tell us what Exhibit 1139 is?

23 A That exhibit is my notes from the first day of the MPEG LA
24 meeting on July 31st, 2003.

25 Q Okay. And do they continue on to a second day?

1 A Yes, they do.

2 Q So these cover July 31 and August 1?

3 A That's correct.

4 Q Are all the responses you just gave to me with regard to
5 how these notes were generated true with this document?

6 A Yes.

7 Q And does it include Motorola -- among other things,
8 Motorola's observations and comments about various strawmen
9 proposals?

10 A Yes.

11 MR. HARRIGAN: We will offer 1139.

12 MR. McCUNE: No objection, your Honor.

13 THE COURT: 1139 is admitted and may be published.
14 (1139 admitted.)

15 By Mr. Harrigan:

16 Q Then would you please take a look at Exhibit 1581, which
17 is the next one? What is Exhibit 1581?

18 A These are the slides that MPEG LA presented at that
19 meeting, starting on July 31st, 2003.

20 Q These slides contained, among other things, the strawmen
21 that were being put up to be discussed?

22 A Correct.

23 MR. HARRIGAN: We will offer 1581.

24 MR. McCUNE: No objection, your Honor.

25 THE COURT: 1581 is admitted.

1 (1581 admitted.)

2 MR. HARRIGAN: In an attempt to simplify this, which
3 I hope is successful, we have the next tab, which should be
4 Demonstrative Exhibit 4003. If you page in about four pages
5 you will see that we have the -- we have some of the slides
6 on one side and some of Mr. Glanz -- and we have Mr. Glanz's
7 notes on the other side.

8 I am holding it up so you can see what I am -- where you
9 should be looking. So we are going to go back and forth
10 between these two documents and try to relate your notes to
11 what was under discussion as reflected in the slides.

12 By Mr. Harrigan:

13 Q Just by way of a little more background before we dive
14 into this, did you express views on behalf of Microsoft at
15 the MPEG LA meetings about what you believed or Microsoft
16 believed should be the basic approach to setting royalties?

17 A Yes, I did.

18 Q And what did you say in that regard?

19 A Microsoft's view was that the exercise of establishing the
20 licensing terms for H.264 had to strike the right balance
21 between achieving sufficient revenue for the patentholders so
22 as to motivate enough patentholders to join the effort, as
23 well as to establish a royalty rate that was supportable and
24 acceptable to a wide variety of companies that might
25 ultimately choose to implement the technology into their

1 products.

2 Q And did you express that -- Microsoft's support for that
3 approach to the other people at the meetings?

4 A Yes.

5 Q Were there discussions during the meetings about the risk
6 that might exist if rates were set too low?

7 A Yes, there was. If rates were set too low, the risk was
8 that the revenues would not be significant enough to motivate
9 patentholders to actually contribute their patents to the
10 joint license, and therefore the license would not represent
11 a one-stop shop for potential licensees.

12 Q And were there discussions about the risks if the rates
13 were set too high?

14 A Yes, there were.

15 Q And what -- generally, what was the conversation about
16 that?

17 A If the rates were set too high, licensees would likely
18 consider the technology economically unsupportable and would
19 ultimately decide to implement competing or alternative video
20 codec technologies.

21 Q And were there discussions about -- if this balance was
22 not reached, if an appropriate balance was not reached, such
23 as you just described, whether that entailed any risk to the
24 success of the standard, was that a conversation --

25 A Yes.

1 Q And what was the risk?

2 A Again, the risk was that if the rates were too high,
3 potential implementers would use alternative video coding
4 technologies, and H.264 would not be broadly adopted across
5 the market.

6 Q So let's go and take a look at your notes here. Now, this
7 was not the first meeting, correct?

8 A No. I recall this was the second meeting.

9 Q Take a look initially at the -- at what is numbered
10 Slide 14 of the slide deck, which is opposite the first page
11 of your notes here. It says, "The license working session of
12 strawman." Is this the strawman that was put forward on the
13 first day?

14 A Yes, it is.

15 Q The date at the top of your notes on the right-hand side
16 of this says July 31, '03. Are those the notes with respect
17 to the discussion of the strawman that we are looking at
18 here?

19 A Yes, they are.

20 Q Just tell the court briefly what the two component -- the
21 main two components of the strawman are here as reflected in
22 the first two pages, that is Slides 14 and 15 of the slide
23 deck?

24 A Sure. MPEG LA's initial proposal was to establish
25 separate royalty rates for either AVC or H.264 baseline

1 products, and main or extended products. "Baseline" refers
2 to a limited functionality version of the technology that
3 would not support, for example, high definition video.
4 "Main" and "extended" are the more capable versions of the
5 technology.

6 And MPEG LA was proposing that a lower rate be established
7 for baseline products of 50¢ per codec, with \$1 million --
8 actually \$2 million per codec caps. And in the case of main
9 and extended, MPEG LA had a proposal that the codec --

10 Q Before we get too -- Extended is on the next page?

11 A Yes.

12 Q Slide 15. Go ahead with extended.

13 A So the extended proposal was for a per codec rate starting
14 at \$1.50 per unit for the first 10 million units; scaling
15 down to \$1 per codec from 10 to 20 million; and then scaling
16 down to 50¢ from 20 to 50; and then for any units over 50
17 million, 20¢ per codec.

18 Q The does the first section of your notes deal with the
19 discussion about those two -- basically those two pages,
20 primarily?

21 A Yes.

22 Q Let's just take a look then. We have the date. About
23 three lines down you say, "Strawman is presented to start
24 discussions." And that is the strawman we just went through,
25 correct?

1 A Correct.

2 Q And then I see you have France Telecom written down here
3 at the bottom. Is that the first comment?

4 A Yes.

5 Q And the next several pages contain what, generally?

6 A The next several pages contain the notes based on what
7 each company said in response to the strawman proposal.

8 Q So at the top of the next page, which is 27603 in the
9 lawyer number, you have Sony. So this is Sony's comments?

10 A Correct.

11 Q And you have a circle around the word "cap." What does
12 that signify?

13 A I was noting that Sony and many other companies, as you
14 will see in the notes, were supportive of having an annual
15 cap applied to the royalties paid by any given company.

16 Q So every time we see "cap" circled under a name, they were
17 for some kind of a cap?

18 A Correct.

19 Q And over on the next page I see that you have, under
20 Samsung, second line, "Same royalty for all profiles"?

21 A Um-hum.

22 Q And also under ETRI, and also under MEI. What does that
23 signify?

24 A As I indicated in the strawman, MPEG LA was initially
25 proposing a different royalty rate for baseline versus the

1 main and extended. It was quickly agreed to among the group
2 that there shouldn't be separation in royalty rates for the
3 different profiles.

4 Q And then at the bottom of Page 27604 we have your notes on
5 Motorola's comments on this strawman?

6 A That's correct.

7 Q I may interrupt here and there to ask you a clarification.
8 But would you just go through that and tell the court what
9 Motorola had to say about this proposal?

10 A Sure. So Motorola indicated -- said that the grace period
11 proposed by MPEG LA was a good idea, but that it may need to
12 be even longer than what MPEG LA proposed initially.

13 Q And I am going to interrupt you right there, and just tell
14 the court that Slide 19, which is also in this collection in
15 this section, says, "Grace period during 2004 for licensees
16 who sign up within six months of license start up." So no
17 cost if you sign up within six months, right?

18 A No cost for that period of time.

19 Q Right. So Motorola liked the grace period, but thought it
20 should be perhaps longer?

21 A That's correct.

22 Q Go ahead. Continue explaining -- telling us what
23 Motorola --

24 A Motorola said that there should be a minimum threshold,
25 meaning that some number of initial units should be royalty

1 free.

2 Q And we just looked at the November press release. In
3 fact, that was ultimately adopted, was it not?

4 A That's correct.

5 Q The first how many?

6 A 100,000.

7 Q Go ahead.

8 A Motorola noted -- said that it was in strong favor of a
9 cap -- an annual royalty cap.

10 Q Okay.

11 A Motorola pointed out that in some of the revenue
12 projections presented by MPEG LA that mobile devices were not
13 actually included as a category, and that projections at the
14 time back in 2003 indicated that 50 percent of mobile phones
15 would support video by the year 2010. So Motorola stated
16 that they felt -- they believed that mobile would be a
17 significant contributor to the revenue stream going forward.

18 Q Okay.

19 A Further, Motorola said the rates proposed by MPEG LA and
20 the strawman were too expensive for mobile devices,
21 especially given the low price points that many of those
22 devices sell at, and will ultimately -- would ultimately lead
23 mobile OEMs like Motorola to choose alternative video coding
24 technologies.

25 Q Alternative to what?

1 A To H.264.

2 Q And then what is the last point here?

3 A The last point again refers to the revenue projections
4 presented by MPEG LA. Motorola said that the encoder
5 projections seemed to be significantly higher than the
6 decoder projections in question, and whether that made
7 logical sense.

8 Q So then I see that your notes continue with various
9 comments by other companies. And then we get to Page 27609,
10 which starts "Larry's summary." Who is Larry?

11 A Larry Horne is the CEO of MPEG LA, and was essentially the
12 facilitator of these meetings.

13 Q And explain what he said in his summary here.

14 A So once he heard each of the companies' reactions to the
15 strawman proposal, he summarized by indicating that -- by
16 saying that he heard the group clearly say that all H.264
17 profiles should be treated the same, in terms of how the
18 license would apply and the rates would apply. He said that
19 he heard the group state that caps -- annual caps were a
20 necessary component of the ultimate license structure, and
21 that there was some question about whether use fees, or
22 participation fees as they were later called in the press
23 release, were the right thing to do.

24 Q And then do you then record the comments of various people
25 about the use fees?

1 A That's right.

2 Q And over on the next page, what was Motorola's comment
3 about that?

4 A Motorola said that it did not support use fees because it
5 was concerned that content distributors would try to pass the
6 fees up to suppliers or vendors of the H.264-capable devices.
7 So, for example, the Motorola set-top boxes that were sold to
8 cable companies like Comcast.

9 Q Now, we have the second demonstrative, which works the
10 same way as the one we just went through with the slides on
11 the left and the notes on the right. And these are taken out
12 of the other original exhibits. And this is called 4004.

13 Just to get oriented here -- First of all, do the
14 slides here represent some strawmen who were put forward on
15 August 1?

16 A Yes.

17 Q And your notes about -- comments about them?

18 A Correct.

19 Q I see that the first page, Slide 27, says, "Strawman II
20 all profiles." Now we are just talking about one profile?

21 A Well, single rate for all the different profiles.

22 Q Would you tell the court what is depicted here for
23 Strawman II? And then I see that Strawman No. III starts
24 three pages -- on Slide 30. If you can just do this, go
25 through the two of them and explain what they proposed and

1 what the main differences are?

2 A So on the second day of the meeting, MPEG LA came in with
3 two new strawman proposals based on what they had heard the
4 day before. And specifically they presented this to the
5 group and asked each company to comment on which of the two
6 strawman proposals, No. II or No. III, each company
7 preferred.

8 Q So let me interrupt. Were they saying what would you like
9 to do, or are they saying which one of these two do you
10 prefer?

11 A The specific question was which of these two do you
12 prefer.

13 Q Go ahead.

14 A So Strawman II establishes or proposes a per codec rate
15 of -- so there is a threshold for the first -- royalty free
16 threshold for the first 50,000 units, after which it
17 establishes a per codec rate of \$1 for the units between
18 50,000 and 5 million, 50¢ per codec between 5 million and 10
19 million units, and 20¢ per codec for any units above 10
20 million.

21 And in the proposal MPEG LA suggested that there would be
22 a prepayment option available, an up-front prepayment, for
23 companies that expected to ship in high volume. So this was
24 in lieu of a cap.

25 Q So just another way of arriving at some of the same

1 objectives as the cap?

2 A It is a way of lowering the per unit rate for high volume
3 producers.

4 Q Right. Go ahead then, if you would, since I think the
5 rest of this refers to things related to other parts of the
6 technology. How about Strawman No. III, how did that differ
7 with respect to the codec part of this?

8 A Strawman No. III also had a royalty-free threshold of
9 50,000 units. The initial \$1 per codec rate only applied up
10 to 2.5 million units, and the rate would go down at 2.5 to
11 50¢ through 10 million, and above 10 million units it was 20¢
12 per codec.

13 Additionally, MPEG LA proposed that there would be annual
14 up-front caps available of \$8 million for each of the five
15 categories of H.264-capable products that they proposed.

16 Q Then turning to your notes, just so we get the terminology
17 here right. The first page of your notes says, "Day two,"
18 and it lays out a set of proposals. Which strawman are you
19 writing down here?

20 A This is day two. The first page of the notes refers to
21 Strawman II.

22 Q And the next page you have "Proposal No. 2." What does
23 that refer to?

24 A That refers to the second proposal of the second day,
25 which is actually Strawman No. III.

1 Q So these two pages are you basically writing down what the
2 proposals were?

3 A Correct.

4 Q Then we get to "FT OK." What does that mean?

5 A That means France Telecom was agreeable to these
6 proposals.

7 Q And then it says -- What does the next line say?

8 A Sony's comment was that it preferred rather than
9 Strawman II or III to revisit the structure that was agreed
10 to for MPEG LA visual.

11 Q So they weren't answering the question?

12 A Correct.

13 Q Do you know what the MPEG-4 structure was that they were
14 saying they preferred, approximately, generally?

15 A Yes. The MPEG LA license structure established a 50¢ per
16 codec rate, 25¢ for decoders, 25¢ for encoders with annual
17 caps of \$1 million each for encoders and decoders.

18 THE COURT: Mr. Harrigan, let me stop you. When you
19 say "50¢ per codec," what does that mean?

20 THE WITNESS: So a codec is basically the combination
21 of an encoder, which is able to create the content in a
22 compressed format, and a decoder, which is able to play back
23 the content in a compressed format. Many devices implement
24 both encode and decode functions, and therefore would have a
25 codec.

1 By Mr. Harrigan:

2 Q Paging through here to Page 27614. Did you record what
3 Motorola had to say about these strawman?

4 A Yes, I did.

5 Q And what did they say?

6 A Motorola said that of these two strawmen proposals
7 presented by MPEG LA on the second day, it preferred Proposal
8 No. 1; however, it would want to see a cap applied to it of
9 either \$2 million per year per business unit or somewhere
10 between 8- to \$10 million per year per enterprise.

11 Q And what did Nokia have to say about these strawman?

12 A Nokia basically agreed with Motorola's comment that the
13 \$8 million cap -- enterprise cap at that level was
14 appropriate.

15 Q MS refers to what you had to say; is that right?

16 A That is Microsoft, yes.

17 Q What did you have to say?

18 A Microsoft stated that we, like Sony, preferred the MPEG
19 visual that had been agreed to some months before.

20 Q MPEG-4, I take it, was fresh in the participants' minds?

21 A Most of the participants in the H.264 meetings had
22 previously participated in the MPEG-4 visual discussions, and
23 really all of the same issues around caps and royalty rates
24 came up in that context.

25 Q And skipping down here to IBM, what was their comment

1 regarding the codec royalties?

2 A IBM stated that they also preferred low cost per codec,
3 low royalties on a codec basis.

4 Q So turning to the next tab, was there a licensing patent
5 pool meeting a few days later?

6 A Yes.

7 Q And are these your notes on that patent pool --

8 A Yes.

9 Q -- dated August 5, '03?

10 A Yes.

11 Q And were they taken, maintained and used for the same
12 purposes as the ones that we have just been reviewing for
13 MPEG LA?

14 A Yes.

15 MR. HARRIGAN: We will offer 1583.

16 THE COURT: Any objection?

17 MR. McCUNE: No objection, your Honor.

18 THE COURT: It is admitted and may be published.

19 (1583 admitted.)

20 By Mr. Harrigan:

21 Q We are not going to go through these in any detail. Do
22 they reflect that Mr. Bawel was there for Motorola?

23 A Yes, I believe the meetings actually took place at the
24 Motorola campus.

25 Q And would you turn all the way to Page 27627? There is a

1 reference there to a Motorola proposal. Do these notes
2 reflect a proposal Motorola was making at the Via Licensing
3 meeting?

4 A Yes, they do.

5 Q What was it?

6 A At the time, Motorola proposed that the per codec royalty
7 be 25¢ for the manufacture and sale of the codec, with an
8 additional 5¢ per codec for the use, and that there would
9 also then be annual caps of \$2 million for the manufacture
10 and sale, and \$500,000 for the use, for a total of
11 \$2.5 million maximum per entity.

12 Q And was this inconsistent with what it had said a few days
13 earlier, as you understood it, at the MPEG LA meeting?

14 A No, this was consistent with the statements Motorola made
15 in that meeting.

16 Q These are different rates, though, aren't they?

17 A They are different rates than the strawman, but that's
18 because MPEG LA proposed the strawman proposals.

19 Q After this July/August period, did the meetings continue?

20 A Yes, they did.

21 Q When was a consensus reached on the royalty structure for
22 MPEG LA?

23 A I recall that consensus was reached in the fall time
24 frame, likely October.

25 Q Would you take a look at Exhibit 1643? First of all, tell

1 us what the e-mail discussion is about, and then what the
2 attachment to the e-mail is. Generally what is it about and
3 tell us what the attachment is?

4 A This was an e-mail sent by Larry Horne to the AVC group,
5 which was the e-mail list that included all of the
6 participants in the H.264 licensing discussions, including
7 Microsoft, including Motorola. And this was initially sent
8 as a proposed press release that MPEG LA would make to the
9 marketplace, announcing the terms that the group had agreed
10 upon.

11 Q Why did MPEG LA issue press releases? Why did the group
12 issue press releases?

13 A As noted on the timeline, the standard had been approved
14 back in May, and the market was very interested to understand
15 what the licensing terms would be, so that companies could
16 make decisions about whether or not to implement the
17 technology in their products.

18 Q Why not wait until you were all done with the contracts
19 and so forth?

20 A There was agreement in this time frame on what the basic
21 financial terms of the license would be. However, there were
22 a lot of legal documents that needed to be created amongst
23 the group, and so it was important to let the market know as
24 soon as possible what the rates would be, so that they would
25 have certainty in their product plans while the group

1 continued to work through the process of developing legal
2 documents and actually launching the licensing program.

3 Q Is there a draft press release attached to this e-mail
4 string?

5 A Yes, there is.

6 Q The first two lines of it say, "The essential H.264 MPEG-4
7 AVC patent and patent application holders have reached
8 agreement on the terms of a joint patent license," correct?

9 A Correct.

10 Q Is that true?

11 A Yes, it was.

12 Q And the first page of Exhibit 1643 contains an e-mail from
13 Paul Bawel at 2:21 p.m. on November 7, '03 to Larry Horne and
14 the AVC group, indicating it has some clarifications it wants
15 on the press release?

16 A That's correct.

17 Q Finally, the press release on Page 3 lists the companies
18 that are described in the first sentence as having reached
19 agreement. And is Motorola included there?

20 A Yes.

21 Q And then the next exhibit is 1179, which is also a
22 November 7, '03 e-mail. In this case it starts out with
23 Mr. Bawel saying, "Okay, Motorola agrees with the terms of
24 the press release. Thanks for all of the hard work,
25 everybody."

1 MR. HARRIGAN: We will offer 1179.

2 THE COURT: Any objection?

3 MR. McCUNE: No objection, your Honor.

4 THE COURT: 1179.

5 MR. HARRIGAN: 1643.

6 MR. McCUNE: Also no objection.

7 THE COURT: 1643 is admitted.

8 (1179 & 1643 admitted.)

9 By Mr. Harrigan:

10 Q Did everyone who participated in these meetings agree
11 ultimately to these terms at this point in time?

12 A No.

13 Q Can you recall those who didn't?

14 A Several companies ultimately chose to withhold their name
15 from the press release, and in some cases did not sign up for
16 the licensing program. Those included Apple, NTT, IBM, and a
17 few others.

18 Q Did any of them eventually join the pool?

19 A Apple eventually joined the pool.

20 Q Would you take a look at Exhibit 1642, and tell us what
21 that is? Let me ask you a preliminary question. After the
22 press release went back, did you get any feedback?

23 A MPEG LA received comments and feedback from a number of
24 different potential implementers of the H.264 technology.

25 Q What was the general nature of those comments?

1 A I recall that the feedback was primarily about the
2 participation fees and how they would apply to content
3 distribution businesses.

4 Q And did those -- did that feedback give rise to any
5 changes in the royalty structure?

6 A Yes, there were a few modifications to the structure that
7 was announced on November 7th.

8 Q And then we are just looking at Exhibit 1642. Does that
9 have something to do with these changes?

10 A Yes. This is an e-mail from Larry Horne to the AVC group
11 e-mail list, describing some of the feedback received, as
12 well as some of the proposed changes to address that
13 feedback.

14 Q And then there is an e-mail from Mr. Bawel from Motorola
15 here, expressing agreement in principle with the changes. In
16 the second paragraph he says, "We are also interested in
17 learning how the changes to title by title terms will affect
18 the license, but are in favor of finding the right mix of
19 terms that will result in a successful license for the
20 marketplace," correct?

21 A Correct.

22 MR. HARRIGAN: We will offer 1642.

23 THE COURT: Any objection?

24 MR. McCUNE: No, your Honor, no objection.

25 THE COURT: 1642 is admitted.

1 (1642 admitted.)

2 By Mr. Harrigan:

3 Q Please take a look at 1626. Before we go into that, take
4 a look at the next one, 1625. So 1625 starts with an e-mail
5 of May 17, '04, from you to Larry Horne. And before we get
6 to that one, let's look at the last e-mail in this exhibit,
7 which is from Mr. Horne to the AVC group. Are you with me?
8 7:34 p.m. on the second page of Exhibit 1625.

9 The second to last sentence of his e-mail says,
10 "Attached for your information is the final press release.
11 We plan to issue it tomorrow, Friday." And this is sent to
12 the AVC group. That included you?

13 A Yes.

14 Q And Mr. Bawel?

15 A Yes.

16 Q And is it your understanding that Motorola approved the
17 press release?

18 A Yes.

19 Q And how did you get that understanding?

20 A I received that -- I developed that understanding based on
21 both this e-mail chain where Larry Horne specifically
22 mentions that Motorola has approved the release, as well as
23 the fact that the final release that was issued included
24 Motorola's name.

25 Q Is Exhibit 1626 the press release that is under

1 discussion, that was mentioned in Exhibit 1625?

2 A Yes, it is.

3 Q The first sentence of Exhibit 1626 says, "MPEG LA today
4 announced that AVC's essential patentholders have agreed on
5 final terms of license to be included," et cetera. And on
6 the second page, in the next to the last paragraph, it says,
7 "Owners of substantial patents that expect to participate in
8 the AVC patent portfolio license include," and then there is
9 a list which in the third line says, "General Instrument
10 Corporation, dba, Motorola Broadband Communications Sector."
11 Correct?

12 A Yes.

13 MR. HARRIGAN: We will offer 1626 and 1625.

14 THE COURT: Any objection to 1625?

15 MR. McCUNE: No objection, your Honor.

16 THE COURT: 1626?

17 MR. McCUNE: No objection.

18 THE COURT: Both are admitted.

19 (1625 & 1626 admitted.)

20 By Mr. Harrigan:

21 Q Then, Mr. Glanz, if you would be so kind as to look at the
22 next three exhibits in your notebook. 1141, tell us what
23 that is.

24 A 1141 is the agreement among licensors for the H.264 pool,
25 and describes a number of different things that the licensors

1 agreed to, including -- I believe it talks about the royalty
2 sharing formula.

3 Q Okay. And that's the one you generally described earlier?

4 A Correct.

5 Q During the discussion of the royalty structure, including
6 the royalty sharing method, at the MPEG LA meetings that we
7 have been talking about, did Motorola ever raise its hand and
8 say, by the way, our patents are worth more than the rest of
9 your patents so we should get higher royalties?

10 A No, Motorola never stated that.

11 Q Okay, what is Exhibit 1636?

12 A 1636 is the licensing administrator agreement between
13 MPEG LA and the various patentholders.

14 Q And Exhibit 3087 is what?

15 A That is the actual patent portfolio license between the
16 pool and various licensees.

17 Q They are all basically in this format; is that right?

18 A That's correct.

19 Q This one is with Microsoft?

20 A Correct.

21 MR. HARRIGAN: We will offer 1141, 1636 and 3087.

22 MR. McCUNE: No objection to any of those.

23 THE COURT: They are admitted and may be published.

24 (1141, 1636 & 3087 admitted.)

25 By Mr. Harrigan:

1 Q Did you eventually hear that Motorola was not going to
2 join the pool?

3 A Yes, we did.

4 Q And prior to learning that they were not going to join the
5 pool, had anyone from Motorola told you that they objected to
6 the royalties?

7 A No.

8 MR. HARRIGAN: No further questions.

9 CROSS-EXAMINATION

10 By Mr. McCune:

11 Q Good morning, Mr. Glanz.

12 A Good morning.

13 Q Do you have the cross witness notebook in front of you?

14 A I do.

15 Q Mr. Glanz, my name is Phil McCune, and I represent
16 Motorola in this case.

17 Mr. Glanz, Microsoft participated in the MPEG LA H.264
18 pool because it was a proponent of the technology, correct?

19 A That's correct.

20 Q Microsoft participated in the pool because it wanted H.264
21 to become a broadly adopted standard, correct?

22 A Correct.

23 Q Also, Microsoft participated in the pool because, whether
24 Microsoft wanted H.264 to become a standard or not, it was
25 likely to become an important standard, correct?

1 A If the licensing rates were set appropriately, yes.

2 Q Your deposition is in the back of your binder, sir. Would
3 you take a look at Page 67 of your deposition, starting at
4 Line 23? Let me know when you're there.

5 A 67, Line 3?

6 Q Line 23. Question: "Would you agree that Microsoft
7 argued for low codec fees with reasonable annual caps and
8 opposed use fees, at least in part, because H.264 was
9 considered likely to be adopted, and an important media
10 standard, and hence having the ability to support it in
11 Windows was consider critical to insure the flow of content
12 to Windows?" Answer: "Yes, I would agree with that
13 statement."

14 A I am not seeing that on Page 67, Line 3 of what I am
15 looking at here.

16 Q Line 23, sir.

17 A 23. I'm sorry. Would you repeat the question?

18 Q That statement -- the text I just read to you from Line 23
19 on Page 67 to Line 5 on Page 68, that was a correct
20 statement?

21 A Yes.

22 Q And you still agree with that statement, correct?

23 A I do.

24 Q Microsoft wanted low codec fees and annual caps on those
25 license fees for the MPEG LA H.264 pool, correct?

1 A Low in comparison to MPEG-2, correct.

2 Q This was in an effort to control part of the licensing
3 costs as part of Microsoft's business strategy, correct?

4 A That wasn't the only reason.

5 Q That was an important reason?

6 A That was a reason.

7 Q Microsoft wasn't obligated to participate in any of the
8 MPEG LA H.264 pool or the Via H.264 pool, was it?

9 A No.

10 Q In fact, no standard essential patentholder was obligated
11 to participate in any pool, was it?

12 A Correct.

13 Q And Microsoft advocated an H.264 licensing model where
14 Microsoft's royalty covered OEMs using the Windows operating
15 system, correct?

16 A Correct.

17 Q That licensing structure fit Microsoft's goal of
18 incorporating the H.264 standard into Microsoft's PC
19 operating system, correct?

20 A Correct.

21 Q In fact, Microsoft obtained from MPEG LA separate
22 licensing caps for PC operating systems software that used
23 the H.264 standard, right?

24 A Correct.

25 Q You mentioned that briefly with Mr. Harrigan earlier.

1 These caps limited the cost of H.264 integration for
2 Microsoft's OEM customers, correct?

3 A Correct.

4 Q Your group considered getting that structure into the
5 MPEG LA H.264 pool a win, didn't they?

6 A Yes, we did.

7 Q It was a win because H.264 licensing terms were low enough
8 that Microsoft could make a business case to ship the codecs
9 in Windows and not create royalty liability for its OEMs?

10 A It was a win because it allowed us to insure the broad
11 support of H.264 in a high volume product like Windows.

12 Q And to insure that could be there, Microsoft needed to
13 have royalty rates that justified its putting it in there and
14 not creating too much of a cost structure, correct?

15 A We didn't want to create a significant liability for our
16 OEMs if we were able to bear the cost ourselves.

17 Q Let's take a look at Trial Exhibit 3088. It is the second
18 tab in your notebook that has many tabs, not all of which we
19 will be talking about today.

20 Do you have the exhibit in front of you, sir?

21 A 3088?

22 Q 3088, correct.

23 A Yes, I do.

24 Q And you identified this document in your deposition as a
25 July 2004 slide presentation for Microsoft's executive

1 internal review prior to signing the MPEG LA H.264 patent
2 pool agreements; is that correct?

3 A Correct.

4 Q And if you look at Page 5 of this agreement -- excuse me,
5 of this presentation, Page 5 of a five-page presentation,
6 that's a full page discussing the costs to Microsoft of
7 licensing into the H.264 patent pool, correct?

8 A Correct.

9 Q At this time Microsoft had a good idea of the licensors
10 for the pool, right?

11 A Yes, we did.

12 Q And there is no analysis here of the revenues to Microsoft
13 from that pool, correct?

14 A Correct.

15 Q And there is no evidence from this executive presentation
16 that pool revenues were a driving factor for Microsoft in its
17 analysis of whether to join the MPEG LA H.264 pool, correct?

18 A Pool revenues were very difficult to calculate, and
19 therefore we did not attempt to do that in this presentation.

20 MR. McCUNE: Move to strike, your Honor, and request
21 that the witness be instructed to answer the question.

22 THE COURT: Overruled.

23 By Mr. McCune:

24 Q Sir, is there any presentation in this Exhibit 3088 that
25 discusses revenues from Microsoft's licenses that were in the

1 pool -- that would be in the pool?

2 A No.

3 Q Was that something that was discussed with the Microsoft
4 executives that were present for this presentation when they
5 considered joining the H.264 MPEG LA pool?

6 A I don't recall.

7 Q Now, there are many reasons, Mr. Glanz, why an H.264
8 standard-essential patentholder might choose not to join the
9 MPEG LA H.264 pool, correct?

10 A Correct.

11 Q One reason would be that a patentholder may choose not to
12 join the pool in order to hold back its patents to use
13 defensively in litigation, correct?

14 A Correct.

15 Q A patentholder -- standard-essential patentholder might
16 also want to seek higher reasonable rates than those that
17 were being charged by a pool, correct?

18 A Correct.

19 Q I read in your deposition -- you stated that your
20 understanding was -- the reason that Motorola had decided not
21 to join the H.264 MPEG LA pool was that --

22 MR. HARRIGAN: Your Honor, I think we are getting
23 into an area that the court has precluded at this point. The
24 previous questions were generic. This one is now about why
25 Motorola might not have joined the pool.

1 MR. McCUNE: I only have one question, your Honor,
2 directed to what this witness's understanding was of why
3 Motorola did not join the pool.

4 THE COURT: I will permit the question.

5 By Mr. McCune:

6 Q Was it your understanding, sir, that Motorola had decided
7 for various reasons that it was advantageous to them not to
8 license to the MPEG LA pool?

9 A I recall that we learned from Larry Horne that Motorola
10 had sold the patent that it had initially submitted for its
11 participation in the pool.

12 Q Will you take a look at your deposition at Page 27, sir?
13 Starting at Line 19 of Page 27 of your deposition. Question:
14 "Do you have any understanding of why Motorola dropped out?"
15 Answer: "I do not have a detailed understanding. As I
16 recall, they decided for various reasons to, you know -- that
17 it was advantageous for them not to license through the
18 MPEG LA pool."

19 MR. HARRIGAN: Objection. Lack of foundation.

20 THE COURT: Overruled.

21 By Mr. Harrigan:

22 Q Is that a correct statement, sir?

23 A That is what I said during my deposition. At the time I
24 think that is what I understood.

25 Q And then at Line 25 on Page 27. Question: "You were in

1 direct communication with individuals at Motorola during the
2 MPEG LA H.264 discussion process?" Answer: "Yes, I had in
3 the previous MPEG LA visual pool developed a relationship
4 with Paul Bawel, who was at Motorola." Is that a true
5 statement, sir.

6 A That is true.

7 Q Let's move on, Mr. Glanz, to Exhibit 2359. That is the
8 third tab in your binder, sir. Do you have that in front of
9 you?

10 A I do.

11 Q This is an e-mail string produced by Microsoft to Motorola
12 in this litigation. Did you review this exhibit in preparing
13 for your testimony today, sir?

14 A I did see this, yes.

15 Q So you would agree with me, wouldn't you, that this is an
16 e-mail string that discusses the development of a slide deck
17 for a presentation at the Standards Summit at Microsoft in
18 about April of 2006; is that correct?

19 A Yes.

20 Q Does this e-mail string -- Do you recall this string,
21 sir, after having reviewed it?

22 A I do.

23 Q Was it created in the ordinary course of business?

24 A It was.

25 Q Were you the -- were you involved in the way that it is

1 indicated, in the to/from lines throughout this string, sir?

2 A Yes.

3 Q Does it accurately reflect your interaction with others at
4 Microsoft with respect to the Standards Summit?

5 A Yes, it does.

6 MR. McCUNE: Your Honor I would move Exhibit 2359
7 into evidence.

8 MR. HARRIGAN: No objection.

9 THE COURT: It is admitted.

10 (2359 admitted.)

11 By Mr. McCune:

12 Q Mr. Glanz, let's start at Bates number ending with 618 on
13 the exhibit. If you can take a look down at the -- it looks
14 like an Excel spreadsheet, that discussed the notes from 2:00
15 to 2:45 p.m. time slot. Do you see that there?

16 A Yes, I do.

17 Q It says there will be a case study, correct?

18 A Um-hum.

19 Q Presented by Pat Griffis, correct?

20 A Correct.

21 Q And the subject will be "Business win," correct?

22 A Could you repeat the question?

23 Q One of the subjects of that case study will be a business
24 win, correct?

25 A Yes.

1 Q And the other bullet says, "Success of VC-1 into SMPTE and
2 H.264 royalty avoidance." Did I read that correctly?

3 A That's what it says.

4 Q The case study was going to discuss how Microsoft had
5 avoided H.264 royalties, correct?

6 A I don't know. I was not involved in setting the agenda
7 for this session.

8 Q Were you ultimately involved in the slide deck that became
9 part of this presentation?

10 A As indicated in this e-mail thread, it was sent to me, but
11 I did not have a chance to review it. I did see the notes
12 that Mr. Ribas had included in his comments.

13 Q You had an understanding, sir, though, because of your
14 involvement with the MPEG LA H.264 pool that Microsoft
15 considered it to be a business win to have obtained the
16 royalty structure that it did in that pool, versus other
17 potentially higher royalty structures, correct?

18 A Yes. We felt that the royalty structure was supportable
19 in the marketplace.

20 Q If we turn to page Bates numbered last three digits 615,
21 the second page of the exhibit, sir. Gary Sullivan at the
22 bottom e-mail here, the last e-mail, Monday May 8th, is
23 writing to you and several others about the slide deck that
24 is being put together, correct?

25 A Yes, it looks like that is correct.

1 Q And Gary says, "Regarding slide number 3, I believe that
2 for many years MPEG-2 was even more expensive than \$2.50 a
3 unit." Is that a correct statement?

4 A I believe that is true.

5 Q And above that Pat Griffis writes back to Gary, you and
6 others, "I will comment on the initial \$4 device MPEG-2
7 pricing in comments. It was 2.50 at the time we started the
8 new pool." Was that a correct statement by Pat Griffis at
9 that time?

10 A I believe so.

11 Q Moving to the first page of Exhibit 2359. If we look --
12 not your e-mail at the top, but the next e-mail down, this is
13 an e-mail from Jordi Ribas to you, dated May 12th, 2006;
14 correct?

15 A Correct.

16 Q And Jordi is asking you whether you have reviewed and
17 blessed the deck that has been discussed throughout this
18 e-mail, correct?

19 A Yes.

20 Q Jordi asks you to take a look at Jordi's comments on the
21 deck, and correct -- can approve or disapprove her comments
22 as to whether her comments correcting the deck are
23 appropriate; is that right?

24 A That's correct.

25 Q Jordi writes, "I found incorrect, sensitive or misleading

1 statements in this deck," correct?

2 A Yes.

3 Q I'm sorry?

4 A Correct.

5 Q And she says -- or he says, "I highly recommend revising
6 it giving the following," and has a list of five points,
7 correct?

8 A Correct.

9 Q And point number five, Jordi quotes the deck as saying,
10 "Microsoft has a strong position in the H.264 patent pool and
11 helped establish the pool's licensing terms. Much more
12 reasonable for Microsoft than MPEG-2." Jordi was quoting the
13 deck at that time; is that right?

14 A Yes.

15 Q And Jordi wrote in response to that deck statement,
16 "Misleading. The patent that allowed us to participate in
17 the H.264 patent pool initially was an old patent filed years
18 before we contributed to H.264."

19 And then Jordi writes further, "In this case MPEG LA
20 allowed those with 'patent applications' later on to
21 participate. But this was unprecedented so we couldn't count
22 on it for future reference." That's what Jordi wrote to you,
23 correct?

24 A Correct.

25 Q And you wrote in response, "I agree with your points

1 below," correct?

2 A Correct.

3 Q You and Mr. Harrigan discussed another licensing pool,
4 Via, that was formed at the same time the MPEG LA pool,
5 correct?

6 A Correct?

7 Q Microsoft participated in Via meetings, right?

8 A That's right.

9 Q But Microsoft decided not to join Via?

10 A Correct.

11 Q And Via did offer a pool license ultimately, correct?

12 A For a period of time, yes.

13 Q Microsoft was not a member of that pool?

14 A No.

15 Q There are patent pools other than Via that Microsoft has
16 explored and decided not to joint, such as the MPEG LA DRM
17 pool, correct?

18 A That's correct. That was not a standards-based pool.

19 Q Look at Exhibit 1581 that Mr. Harrigan discussed. You
20 also have it in this folder. It is in the middle of all
21 these tabs, 1, 2, 3, 4, 5 up from the back?

22 THE COURT: Counsel, is this a good time to stop?

23 MR. McCUNE: Yes, it is, your Honor.

24 THE COURT: We will be in recess. Mr. Jenner, did
25 you want to do something at five minutes to 1:00?

1 MR. JENNER: I'm sorry, your Honor?

2 THE COURT: Do you still want to take up some matter
3 at five minutes to 1:00?

4 MR. JENNER: If it is acceptable to your Honor, it
5 would be a prudent time to consider that.

6 THE COURT: We will be back out at five minutes to
7 1:00. We will be in recess. Thank you, counsel.

8 (Recess.)

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1 AFTERNOON SESSION

2 THE COURT: Mr. Jenner.

3 MR. JENNER: Your Honor, thank you. Following up on
4 a discussion from earlier this morning, Your Honor, what we
5 would propose to do, which we hope we can make workable if
6 it's acceptable to Your Honor, is to create a code sheet that
7 will have a correspondence between license agreement
8 companies to which we think we need to refer, and a code.
9 Company A, B, C, D, E, and so on. We would provide that to
10 the court, to the witness, to counsel. We will, to the
11 extent it's feasible, mark the cover page of exhibits with a
12 code name so that it will be hopefully easier for the witness
13 or the lawyer, like me, not to forget that we're using the
14 code name, and try as much as possible to refer to the codes
15 as a way of keeping the identification of licensed parties
16 out of the record as much as possible, if that's acceptable
17 to the court.

18 THE COURT: Why don't you give me some authority
19 where this has been used and I will get back to you. It
20 seems to me that it's violative of what I understand to be
21 the Ninth Circuit's fundamental rule, which is that the
22 public is entitled to know -- I'm still looking for the right
23 term -- non-creative business-related materials. But I'm
24 happy to think about that. I'll take it under advisement.

25 MR. JENNER: All right, sir, we'll see what we can

1 find after the break today and give you what we can in the
2 morning.

3 THE COURT: That would be fine.

4 MR. JENNER: In connection with this, there was one
5 this morning, we're multiplying -- there are now two counsel
6 who, with the court's permission, would like to address the
7 court about their specific situation and issues. One is
8 Mr. Denkenberger of Christensen O'Connor, who would like to
9 be heard on behalf of RIM, and Mr. Paul Zeineddin, of his
10 firm, who would like to be heard on behalf of Samsung, if
11 Your Honor would entertain that.

12 THE COURT: In regards to RIM, they filed a pleading
13 already. I'll hear it, but let's not have a repeat. I don't
14 think I've seen anything from Samsung.

15 MR. JENNER: Your Honor, I'm not the proponent of
16 this. So I would turn this over to counsel if Your Honor
17 will hear from them.

18 MR. HARRIGAN: Your Honor, may I supply about
19 30 seconds of food for thought on counsel's earlier proposal?

20 THE COURT: Yes.

21 MR. HARRIGAN: We think that process might be fine,
22 if the only issue is who is this. But if the issue is what
23 are the facts and elements of this agreement that bear on
24 whatever purpose it's being offered for, and you start
25 talking about their products, and the other things involved

1 in the contract, there's no way to avoid somebody figuring it
2 out. So we think it's probably impractical.

3 THE COURT: That's why I'd like to think about it.
4 But I'm sure Mr. Jenner is going to suggest some creative
5 ways to get around that.

6 MR. JENNER: We're always trying, Your Honor.

7 So I would turn the floor over to counsel.

8 MR. ZEINEDDIN: Good afternoon, Your Honor, and thank
9 you very much. Samsung did submit a motion to seal, however,
10 the specific exhibits that are at issue were not included in
11 either party's motion, so they were not part of the order.
12 And with Your Honor's permission, I'd like to cite the
13 specific number of these exhibits, because they're very
14 sensitive, and so that both parties are on notice, they
15 should be sealed per Your Honor's opinion. And also to the
16 extent that these exhibits would be introduced, we would like
17 a heads-up to actually be able to take a look at any proposed
18 redactions by the parties.

19 THE COURT: You'll need to reach that arrangement
20 with them. But give me the exhibit numbers.

21 MR. ZEINEDDIN: Thank you, Your Honor. They're
22 Exhibits 2769, 3163, 3191, 3238, 3264, and 3137.

23 THE COURT: Thank you, sir. And to all counsel for
24 third parties who are here, after you've read the order, if
25 you want to identify specific exhibits for us to look at,

1 certainly in regards to your clients, feel free to submit
2 that and I'll accept it in, again, a fairly informal form,
3 since we're trying to keep this moving along.

4 And the esteemed delegate for the Christensen O'Connor
5 firm is acknowledged.

6 MR. DENKENBERGER: John Denkenberger on behalf of
7 Research in Motion. I'm not sure if I heard you correctly.
8 RIM is asking the court for the additional 48 hours to review
9 the court's order, as well as the trial transcript, prior to
10 it becoming public. I wasn't sure if that was the earlier
11 question presented by the counsel that was just here. But
12 Research is asking that we be allowed to participate in that
13 review, Your Honor.

14 THE COURT: You're free to submit specific exhibits
15 that you believe are sealed or entitled to different
16 treatment under my order. I can't give you 48 hours, so
17 let's get it by 9 o'clock tomorrow morning. I'm not going to
18 allow third parties to hold individual hearings in regard to
19 exhibits. We'll take a look at it, then we'll rule. And
20 that will be publicly announced so everyone will know what it
21 is.

22 MR. DENKENBERGER: Secondly, and I only have two more
23 issues. Secondly, we request that the proposed coding would
24 be extended to the patents themselves, because the patents
25 typically have the assignee's name on it, in this case it's

1 Research in Motion. If the court does adopt this coding
2 procedure, if the patents themselves are not coded, then
3 outside parties -- so we would ask the court to please
4 include that if the court is so inclined.

5 THE COURT: I'm sure Mr. Jenner will welcome your
6 suggestions to include it in his proposal. I understand the
7 concern, if it's Code X and it's a RIM patent, you might draw
8 the logical conclusion.

9 MR. DENKENBERGER: From the court's orders of
10 yesterday, we note that Exhibit 2800 is missing from those
11 documents that should be sealed. And we'd ask that
12 Exhibit 2800 be added to those listing of documents under
13 seal. And it was part of our motion, Docket No. 502.

14 THE COURT: We'll look at 2800.

15 MR. DENKENBERGER: Thank you for your time.

16 THE COURT: Mr. McCune.

17 CROSS EXAMINATION (Cont.)

18 By MR. McCUNE:

19 Q Mr. Glanz, I'm sorry we couldn't get you out of here
20 before lunch. It won't be too much more time for us here.
21 First of all, if I could direct you, Mr. Glanz and
22 Mr. Harrigan, to an exhibit we discussed previously,
23 Exhibit 3088. I neglected to move that exhibit into evidence
24 through your examination I'd like to do so now.

25 THE COURT: Any objection?

1 MR. HARRIGAN: No objection.

2 THE COURT: It is admitted and may be published.

3 (Exhibit No. 3088 was admitted into evidence.)

4 Q Mr. Glanz, if you would turn to Exhibit 3091 in your
5 exhibit binder, it's the fourth up from the back.

6 THE COURT: Your binder?

7 MR. McCUNE: Yes, Your Honor, in the cross
8 examination binder.

9 Q Do you have it, Mr. Glanz?

10 A I do.

11 Q Mr. Glanz, this is a two-page exhibit, the top of which is
12 an e-mail from you to Xavier Pouyat, I'm not sure if I have
13 that name right.

14 A Right.

15 Q This is an e-mail that was communicated in the ordinary
16 course of business at Microsoft, correct?

17 A Correct.

18 Q And you recognize this e-mail as an accurate
19 representation of your communication, correct?

20 A I do.

21 MR. McCUNE: I'd like to move 3091 into evidence.

22 THE COURT: Any objection?

23 MR. HARRIGAN: No objection.

24 THE COURT: It is admitted.

25 (Exhibit No. 3091 was admitted into evidence.)

1 Q In this e-mail, Mr. Glanz, you're suggesting updates to a
2 slide that has been put together by Mr. Pouyat, correct?

3 A Yes, correct.

4 Q It says at the top, "I suggest a few updates to slide 7."
5 And one of the updates is with respect to H.264 AVC, correct?

6 A Correct.

7 Q The first bullet point says, "The MPEG patent pool license
8 available with patents from 18 companies." Right?

9 A Correct.

10 Q The second bullet says, "Via licensing pool license
11 available with patents from five companies." Right?

12 A Correct.

13 Q The next bullet says, "Some companies joining neither
14 patent." Correct?

15 A Correct.

16 Q And the last bullet says, "100-plus companies jointly
17 developed H.264 AVC." Correct?

18 A Correct.

19 Q So at this time on October 31st, 2005 of about 100
20 companies that had developed the technology for H.264, 18 of
21 those companies that had standard essential patents were in
22 the MPEG LA patent pool, correct?

23 A That's correct.

24 Q And only five of those companies that had standard
25 essential patents were in the Via licensing pool, correct?

1 A That's correct.

2 Q In October 2005, at the time of this e-mail, you knew that
3 some companies with standard essential patents to H.264
4 technology, were not in either the MPEG LA or Via pools,
5 right?

6 A Yes.

7 Q Some of those companies were Apple, correct?

8 A (Nods head.)

9 Q Nokia, right?

10 A (Nods head.)

11 Q I need a verbal answer, sir.

12 A Yes. Apple, Nokia, correct.

13 Q IBM, correct?

14 A Yes.

15 Q Motorola, of course?

16 A Yes.

17 Q Thompson, right?

18 A Correct.

19 Q And each of those companies that we've just mentioned had
20 participated in the MPEG LA pool discussions, right?

21 A That's right.

22 Q And each of those companies participated in the Via pool
23 discussions also, right?

24 A I don't recall if each had been in both, but they
25 certainly had been in one or the other.

1 Q IBM in the MPEG LA discussions the been opposed to caps,
2 right?

3 A I don't recall, specifically.

4 Q Let's turn to page 45 of your deposition, please, at
5 line 17. Let me know when you're there.

6 A I'm there.

7 Q "Question: What comments by IBM do you recall? Answer:
8 I recall that they were not in favor of annual caps, that
9 they preferred running royalties." Is that an accurate
10 statement?

11 A That is.

12 Q Do you recall that Thompson had also wanted higher
13 royalties that were uncapped?

14 A I seem to recall that, yes.

15 Q Have you taken a look recently to apprise yourself of who
16 is a member of the MPEG LA pools and Via pools?

17 A I haven't looked at that for quite awhile.

18 Q The last time you did that was about 2010; is that right?

19 A That may be right, yes.

20 Q By 2010 IBM hadn't joined the MPEG LA pool, had it?

21 A I believe that's true.

22 Q Thompson had not joined the MPEG LA pool either, had it?

23 A I think that's right.

24 Q Nokia hadn't joined the MPEG LA pool, right?

25 A I think that's right.

1 Q Motorola hadn't, of course.

2 A Correct.

3 Q Thompson hadn't. And I think that's it for my list. The
4 MPEG LA pool and Via pool each set a RAND rate, right?

5 A They set rates that were determined by the licensors in
6 that pool, and those licensors felt were market-acceptable
7 rates.

8 Q Those licensors felt that those rates were reasonable and
9 non-discriminatory also, correct?

10 A I can't speculate on what they thought about that.

11 Q The Via rate structure and MPEG LA rate structure were
12 different, correct?

13 A That's right.

14 Q We talked earlier about how you knew Paul Bawel from
15 Motorola, who you met during the discussions about MPEG LA,
16 right?

17 A That's right.

18 Q Paul Bawel came to Microsoft to work, didn't he?

19 A Yes, he did.

20 Q In about mid-2006?

21 A I don't remember specifically. That sounds right.

22 Q He joined the Microsoft standards program?

23 A I believe he joined the IP group in Microsoft.

24 Q And you've had contact with Mr. Bawel since he came to
25 Microsoft?

1 A That's correct.

2 MR. McCUNE: No further questions. Thank you,
3 Mr. Glanz.

4 THE COURT: Counsel.

5 REDIRECT EXAMINATION

6 BY MR. HARRIGAN:

7 Q Is Mr. Bawel currently employed at Microsoft?

8 A No, he is not.

9 Q When did he leave?

10 A I believe he left two months ago, or maybe a month ago.
11 Fairly recently.

12 Q In answer to questions about Exhibit 3088 regarding the
13 absence of projected revenues from the MPEG LA, do you recall
14 that?

15 A Yes.

16 Q You said something like, they were hard to figure out?

17 A That's correct.

18 Q Why was that?

19 A At the time it was unclear both how many patents would be
20 part of or contributed to the pool. It was unclear how
21 broadly H.264 would be adopted, and so therefore it was very
22 difficult, based on the lack of data for those two factors,
23 to understand what Microsoft's revenue share might be from
24 the pool.

25 Q And you were asked some questions about MPEG-2. When was

1 MPEG-2 formed, approximately?

2 A I don't know exactly, but I believe it was in order of the
3 mid-to-late 1990s.

4 Q Okay. And what kind of products were the primary market
5 for the technology that was represented by MPEG-2?

6 A When MPEG-2 was first developed, the primary application
7 was for DVD, disks and players. And so that's really, I
8 think, what the standard was focused on and what the
9 licensing program was therefore focused on.

10 Q We've had some discussions here about the importance of
11 technologies to the functioning of products or whether
12 they're central or tangential. How important was the MPEG-2
13 technology to the hardware DVD players, and so forth, you
14 just described?

15 A MPEG-2 really was the enabler of the primary functionality
16 for a DVD player, which was to play back video content.

17 Q How did that compare, for example, to Microsoft's need for
18 MPEG-2?

19 A In the case for a product like Windows, video playback is
20 one of hundreds if not thousands of different functions
21 accommodated by the platform and the software.

22 Q You were asked some questions about the rate, the royalty
23 rate at MPEG-2 being \$2.50. That would be for the entire
24 pool, correct?

25 A That was the royalty rate set by the pool for use of the

1 codec in a device.

2 Q How successful was the Via licensing H.264 pool?

3 A It was not successful. I don't recall exactly how many
4 licensees they ultimately had, but they eventually wound the
5 pool down and many of those patentholders ended up joining
6 the MPEG LA pool.

7 MR. HARRIGAN: I have one exhibit, Your Honor, that
8 I'd like to offer now, in light of the questions on cross,
9 which is the last exhibit in our notebook, and it's
10 Exhibit 124. And to save everybody the trouble, maybe we
11 could put that up on the screen.

12 Q This is an e-mail of July 14, 2004. Is this the document
13 that you, from which you learned that Motorola had not joined
14 the pool?

15 A Yes, it is.

16 MR. HARRIGAN: No further questions. Excuse me, I'll
17 offer 124.

18 THE COURT: Any objection?

19 MR. McCUNE: No objection.

20 THE COURT: 124 is admitted.

21 (Exhibit No. 124 was admitted into evidence.).

22 THE COURT: Any recross?

23 MR. McCUNE: No, Your Honor.

24 THE COURT: All right. I have some questions.

25

EXAMINATION

BY THE COURT:

Q I'm not sure that I yet understand how pools work. Some pools are more successful than others, I gather?

A That's correct.

Q What differentiates, or what factors make a pool successful?

A So, using perhaps the MPEG LA H.264 pool and the Via pool as an example. MPEG LA was able to get 18 different patentholders to join and accept the terms, and offer their patents to the marketplace. By contrast, Via I believe only had five patentholders that participated. As a licensee or potential licensee of the technology, your hope is to go to, ideally a single place, to get everything that you need from an IPR perspective in order to, then, get a license and ship your product, that incorporates the technology. So, really, MPEG LA's pool had a lot more value to offer those licensees than Via's pool did.

Q We'll come back to that in a moment. Are there different organizations that try and organize these pools, then?

A (Nods head.)

Q Are they private companies? What are they?

A They are, yes. There's a number of other organizations, including Via, MPEG LA, there's a company called Sisvel, it's

1 based in Europe, and often they will, at the early stage
2 compete. They'll both try, or multiple patent pool companies
3 will try to attract licensors and reach a critical mass to
4 then bring a license to the marketplace.

5 Q And am I correct that someone who holds a standard
6 essential patent, or a company that does not hold a standard
7 essential patent to a particular standard, both may join a
8 patent pool?

9 A Only companies that have patents that are deemed to be
10 essential, usually by an outside expert, are allowed to
11 participate in the discussions and ultimately join the pool.

12 Q You've already anticipated my question. Is it then the
13 pool that appoints someone to evaluate if a patent is a
14 standard essential patent?

15 A Yes, they'll usually appoint an outside technical expert
16 who can review the spec of the standard against the patent
17 and make a determination of whether it's truly essential.

18 Q Earlier in your testimony you were talking about how
19 royalty rates are determined. Did I understand you to say if
20 we had one hundred patents in a pool, and I held one of them,
21 my royalty rate would be based on that one patent that I
22 contributed versus the total number of patents?

23 A Roughly speaking there are some additional details behind
24 it, but that's basically how it works.

25 Q How, if at all then, is the contribution of a patent to

1 the standard, assigned some value?

2 A The hope of all the companies that choose to participate
3 in the standard is that over time not only will participating
4 companies contribute more patents into the pool, but that
5 additional companies will ultimately join and raise the value
6 of that pool offering. And so the expectation is that over
7 time as more patents issue, as more patents are contributed,
8 as more companies join, the per-patent value, if you will,
9 for each licensor will go down, because there's more patents
10 in the pool.

11 Q As a general rule, though, wouldn't it seem that the more
12 contribution your patent makes to a standard, the less likely
13 it would be that you would join the pool?

14 A So, every patent in the pool is essential, meaning that
15 you cannot implement the standard without infringing that
16 patent. And while each individual patent owner likely feels
17 that their patents are the best, and that they should get
18 more than their fair share of the credit, the truth is
19 they're all essential, and everyone who joins in the pool
20 agrees to have essentially an equal valuation on a per-patent
21 basis.

22 Q When you say, "each is essential to the standard," as a
23 hypothetical let's assume I have a patent that addresses only
24 interlaced compression.

25 A Um-hum.

1 Q And there is another patent that addresses only
2 progressive.

3 A (Nods head.)

4 Q Would both of those be essential to the standard?

5 A They could be essential to the standard, but they may not
6 be implemented in all of the products in the marketplace. A
7 lot of standards have optional aspects to them.

8 Q So if I were going to use only interlaced and I had no
9 interest in progressive, would I still have to, if I were in
10 this pool, sign up for all of the patents that are in the
11 pool?

12 A So, licensors agree to license all of their essential
13 patents, and licensees are taking a license to all of the
14 patents contributed by members or participants in the pool.

15 Q So the significance, then, if any, of use of a particular
16 technology, would not be to the rate, but it could be to the
17 contribution or the use that your particular product makes of
18 a portion of that standard?

19 A These video pools have chosen not to distinguish the
20 different sort of sub profiles or categories of the
21 technology. That was kind of what we talked about as far as
22 the baseline versus the main and extended. For simplicity
23 sake, the patentholders in those pools decided that, again,
24 all essential patents, all functionality embodied by the
25 standard would be licensed effectively at a single rate, and

1 that, you know, revenue would then be divided up based on
2 just the raw number of patents contributed, not necessarily
3 any determination of relative value or relative use in the
4 market.

5 Q Okay. I interrupted you earlier to talk about codecs.
6 I'm still a little uncertain. Would an encoding codec and a
7 decoding codec count as one codec in terms of the rate that's
8 paid?

9 A Yes. There was earlier discussion where there was a
10 thought of separating the two, because that had been done in
11 MPEG-4, a separate rate for decoders and a separate rate for
12 encoders. But the ultimate decision by both pools was to
13 have a single rate for the codec. So regardless of whether
14 or not you implement just decoding or just encoding, or both,
15 it's the same rate on a per-unit basis.

16 Q When you use the phrase "per unit" what do you mean?

17 A Per device, for example, or per software application.

18 Q I'm still somewhat confused. Let's assume I have a
19 software program, and it has an encoding codec and it has a
20 decoding codec. Do I pay for two codecs, or only one because
21 it's one unit?

22 A Under the terms that were set in the MPEG LA H.264 pool,
23 you'd pay a single fee regardless of whether you implemented
24 decode, encode, or both. It was a single rate, and did not
25 differentiate on which of those sides of the technology, if

1 you will, are implemented.

2 Q Microsoft signed up for the MPEG LA pool, it didn't sign
3 up for the Via licensing pool. In summary terms, why would
4 it be interested in one, not in the other?

5 A So we ended up choosing and going with MPEG LA pool
6 because there were 18 companies, or 17 other companies that,
7 you know, were moving forward with that pool at the time.
8 And we felt that that was the best chance at creating the
9 critical mass that the market would need in order to take
10 that license and make that program work.

11 On the other hand, the Via pool was a smaller set of
12 companies that ultimately went forward. And it was, frankly,
13 impractical to participate in both, because to the extent
14 that a company or licensee decided to take a license from
15 both, they would be getting two licenses, effectively, to
16 Microsoft's patents, and we would ultimately have to refund
17 them some amount of money, you know, so that we weren't
18 double licensing.

19 Q Should I draw any implication as to the usefulness of the
20 802.11 standard, and the fact you chose not to participate in
21 that patent pool?

22 A This was all related to H.264 and was not, you know, tied
23 to anything with 802.11.

24 Q When did Microsoft's involvement with the MPEG LA pool
25 begin on your timeline, if you could --

1 A So, our first experience with MPEG LA all-up was in the
2 MPEG-4 pool, which according to the timeline was effectively
3 launched at the end of 2002. So, we, for some months before
4 that, had been participating in that process. The beginning
5 of the H.264 pool with MPEG LA was, I think the timeline said
6 June of 2003.

7 Q Is it the creation of the pool or the status of your
8 products that causes you to become interested in
9 participation?

10 A It was is a combination of things. Number one, H.264 was
11 considered a very strong video coding technology at the time.
12 Gary Sullivan, who is a Microsoft employee, was the chair
13 person of that standardization group. So Microsoft had good
14 knowledge of what capability the technology had. So we saw
15 real value for it in products.

16 On the other hand, we had a number of patents in the video
17 coding space, and based on our experience with MPEG-4 visual,
18 saw the benefit and value of participating in a patent pool.

19 So it was really the combination of understanding that the
20 patent pool process was valuable, that the technology could
21 be valuable if priced correctly, that led us to choose to
22 participate in MPEG LA and also in Via.

23 Q Well, there seems to be three points of view in this room
24 as to when a hypothetical negotiation should have commenced.
25 Is it correct, then, that in terms of the interest in the

1 H.264 standard that Microsoft was interested in, it would
2 have been at the creation of the MPEG LA pool?

3 A Like I said, part of the reason we chose to participate is
4 we did have interest in the technology and wanted to see a
5 licensing structure that would work in the marketplace and
6 make it successful as a technology.

7 THE COURT: Thank you. Mr. Harrigan, any follow-up?

8 MR. HARRIGAN: Just a couple things, Your Honor.

9 THE COURT: Mr. Jenner, am I going to lure you into
10 this one also?

11 MR. JENNER: It's Mr. McCune's --

12 THE COURT: I know it is Mr. McCune's witness.

13 REDIRECT EXAMINATION

14 BY MR. HARRIGAN:

15 Q Just to make sure we're talking about the same thing here
16 with regard to the Via licensing pool. The Via licensing
17 pool you were talking about is related to what standard?

18 A The one I was talking about was related to H.264.

19 Q Does Via also have a pool relating to 802.11?

20 A I understand they do. I have not participated in that
21 one.

22 Q In your earlier testimony you said that Via and MPEG LA
23 were in competition with each other to be the pool for the
24 H.264 standard.

25 A That's correct.

1 Q So what happened?

2 A So at the end of the day MPEG LA was successful in getting
3 a significantly larger number of patentholders to support its
4 pool. Via had a very small number of patentholders. And
5 ultimately they both launched the program, but over time Via
6 was not successful in getting companies to license, and
7 eventually wound down the pool. And I think most, if not all
8 of the companies in the Via pool, ultimately joined the MPEG
9 LA pool.

10 Q And you testified earlier about the importance of having
11 rates that attract patentholders, and the importance of
12 having rates that attract licensees, and getting a balance.
13 So who did the better job?

14 A I think it was clear, based on the number of companies who
15 offered their patents through it, and the number of companies
16 that took licenses, that MPEG LA was far more successful in
17 finding both the right balance and creating a one-stop shop
18 for the marketplace.

19 Q And, finally, the example that the court gave you where
20 you have one hundred patents in a standard, or in the pool,
21 and you own one, so under that scenario, except for some
22 refinements, you get one-hundredth of the total royalties, is
23 that how that works?

24 A That's correct.

25 Q During the course of the MPEG LA meetings that you've

1 discussed, did anybody question that that was going to be the
2 system?

3 A No. That was a well-established distribution model that
4 MPEG LA had used both for the MPEG-4 visual, as well as, I
5 believe, although I'm not certain about this since we didn't
6 participate, but I believe a similar formula was used in
7 MPEG-2.

8 Q And during the course of those meetings did Motorola ever
9 say: Hey, this doesn't work for us because our patents are
10 worth more?

11 A No.

12 MR. McCUNE: If I could accept Mr. Jenner's
13 invitation, Your Honor.

14 RECROSS EXAMINATION

15 BY MR. McCUNE:

16 Q Mr. Glanz, you just established that essentially one of
17 the ways we've talked about the revenues coming from the
18 patent pool is patent counting, correct? If there are ten
19 patents in a pool, and there's ten dollars worth of revenues,
20 Microsoft gets one dollar, correct? If Microsoft has one of
21 those ten patents?

22 A That's how the calculation would work, yes.

23 Q If Microsoft had two of ten, it would get two dollars?

24 A Correct.

25 Q Is it your contention --

1 THE COURT: Now you're doing math on my level,
2 counsel.

3 MR. McCUNE: That's about as far as I go, Your Honor.

4 Q Is it your contention, Mr. Glanz, that every patent in the
5 MPEG LA H.264 patent pool has equal value in implementing the
6 standard?

7 A My contention is every patent in the pool is essential to
8 the standard, and that the patentholders participating in the
9 pool choose to distribute the revenue from the pool in the
10 manner we just described.

11 Q Is it your contention, Mr. Glanz, that the patents of
12 patentholders that do not participate in the MPEG LA pool,
13 has the same value to implementing the standards as the
14 patents owned by the companies that do choose to participate
15 in the pool?

16 A I couldn't determine that.

17 THE COURT: You're never going to get to leave.

18 EXAMINATION

19 BY THE COURT:

20 Q Assuming that in the pool, then, that we're in this
21 revenue or payment model of number of patents versus total in
22 the pool, why would anyone who had a particularly successful
23 or essential patent choose to participate in a pool, unless
24 they have some advantage from the cross licensing?

25 A So I think the motivation for participating in the pool is

1 to both ensure the success of the standard to generate a
2 reasonable revenue stream from your patents to fulfill your
3 RAND commitment to the standards organization. I think
4 you're right that if someone really wanted to be aggressive
5 with their patents in this particular space, that the pool is
6 not the place to do that.

7 THE COURT: All right. Thank you, sir. Any further
8 questions, counsel?

9 MR. McCUNE: No, Your Honor.

10 MR. HARRIGAN: No, Your Honor.

11 THE COURT: All right. You may step down. Thank
12 you.

13 Microsoft will call its next witness, please.

14 MR. HARRIGAN: Microsoft will call Professor Kevin
15 Murphy.

16 KEVIN M. MURPHY

17 Having been sworn under oath, testified as follows:

18 THE CLERK: Will you state your name for the record
19 and spell your last name, please?

20 THE WITNESS: Kevin M. Murphy, M-U-R-P-H-Y.

21 THE COURT: You may proceed.

22 MR. HARRIGAN: Thank you, Your Honor.

23 DIRECT EXAMINATION

24 BY MR. HARRIGAN:

25 Q Professor Murphy, you've been asked by Microsoft to do

1 some analysis or render some opinions in this case. Could
2 you begin by giving us a -- giving the court a rundown of
3 your current positions, and the length of time you've held
4 them, and what your areas of expertise are?

5 MR. HARRIGAN: I'll just mention, Your Honor, there's
6 a CV, we're not going to wade through it, but it's
7 Exhibit 108 which I'll offer at this time. And I want
8 Professor Murphy to highlight some items.

9 A I'm an economist by training. I have a Ph.D. in Economics
10 from the University of Chicago, which I received in 1986. I
11 also have a BA in Economics from UCLA that I obtained in
12 1981. I have been teaching at the University of Chicago
13 since 1983. I currently am a professor, the George J.
14 Stigler Distinguished Service Professor of Economics in the
15 economics department, and the graduate school of business,
16 now called the Booth School of Business, at the University of
17 Chicago. I teach economics courses for both MBA students and
18 Ph.D. students. And that's pretty much what I've done since
19 I've been there.

20 Q And have you received any academic or other awards related
21 to your profession?

22 A Yes. In, I believe it was 1997, I was awarded the John
23 Bates Clark medal, which is given to -- what at that time was
24 given every other year to an outstanding American economist
25 under the age of 40. It's now given every year, I think, for

1 the last few years. I've received other awards for various
2 papers that I've written in terms of -- one, the Kenneth
3 Arrow Award, the Garfield Award. I was awarded a MacArthur
4 grant about seven years ago, or so, which gives you five
5 years of support for your research.

6 Q Is that the so-called "genius grant" or something like
7 that?

8 A I guess.

9 Q And do you do some work for Navigant Economics?

10 A Yes, I do. I'm managing director at Navigant Economics.
11 It's a firm that specializes in economics and other business
12 consulting. Prior to that I was a principal at Chicago
13 Partners, a similar firm that was acquired by Navigant
14 Economics.

15 Q Is your work in this case on behalf of Navigant?

16 A Yes, I work on behalf of Navigant and do this kind of
17 work, in addition to my work at the University of Chicago.

18 Q And have you personally done, personally or through
19 Navigant, done prior work for Microsoft?

20 A Yes, I have. I've worked on a number of matters over the
21 years for Microsoft.

22 Q And were you involved in their antitrust, some of their
23 antitrust matters?

24 A Yes, I was. I was involved in a remedies phase of the
25 Explorer trial, or however you want to refer to that. I

1 worked for them in the issues involving Sun Microsystems, and
2 several other matters for Microsoft over the years.

3 Q And have you published articles in the economics field,
4 and if so, give us a rough idea of the scope.

5 A Yeah. I've written 65, 70 articles or so on economics in
6 a pretty wide-range of areas from antitrust, to growth, to
7 labor economics, inequality, health, just a whole bunch of
8 different areas of economics over the years.

9 Q And prior to this case, have you had any experience with
10 the economics of intellectual property matters?

11 A Yes, I have. I've worked on a number of consulting
12 matters in terms of determining reasonable royalties for
13 software, medical products. I've also worked for ASCAP,
14 which is a copyright -- issues licenses for performance
15 rights to various entities including television, radio, live
16 performance, and the like. For them I've done mostly
17 consulting work in terms of helping them figure out what
18 rates to charge. They're under a reasonable royalty,
19 reasonable rate setting consent decree from the court. So I
20 work with them to determine what reasonable rates would be.

21 In addition to that I teach about intellectual property in
22 three of the courses that I have taught over time. My Ph.D.
23 course in economics; my public policy course to business
24 students; and my advanced microeconomics course in the Ph.D.
25 program.

1 Q Last but not least, have you done expert or consulting
2 work relating to the economics of the patent system?

3 A Yes, I have. The patent system is one of the topics I
4 like to talk about, it's part of the more general issue of
5 property rights and contracting that is an area of my
6 interest, and an area of great interest to economists, more
7 generally. So it's something we cover in each of the courses
8 I've talked about.

9 Q Okay. What were you asked to do in this case?

10 A I was really asked to do a couple of things. First I was
11 asked to present or analyze what would be an economic
12 framework for arriving at a RAND royalty in this case. That
13 is, from an economic standpoint what are the factors that
14 need to be considered and what frameworks are useful for
15 understanding what would constitute a RAND royalty. I was
16 then asked to evaluate various potential benchmarks for
17 determining a RAND royalty in this case, including patent
18 pools, as well as other licensing agreements put forward by
19 Motorola.

20 Q Okay. And briefly would you tell the court what you did
21 in order to form your opinions on those subjects.

22 A Well, we read the various filings and court documents. We
23 looked at deposition testimony. We looked at the various
24 documents from the case, looked at a lot of licensing
25 agreements over time. We researched various patent pools,

1 not just the pools at issue in this case, but other patent
2 pools for similar type products that emerged in the IT
3 industry. We read the literature in economics. There's a
4 very large literature of people talking about patent issues,
5 and in particular RAND issues, and they talk about issues of
6 hold-up, and patent hold-up, and patent stacking. So it was
7 a matter of putting all those together, and then putting them
8 together with our, you know, economic analysis to come up
9 with conclusions.

10 Q Okay.

11 We have a demonstrative which is simply a blowup of the
12 three opinions that Professor Murphy has reached in this
13 case, which we would like to put up now. That's 4005. And
14 I'm going to ask you, Professor Murphy, to tell us what your
15 opinions are, but why don't we do them one at a time, and
16 start with this one.

17 A Okay. Opinion No. 1 is that RAND commitments encourage
18 adoption in widespread use of standards by preventing
19 hold-up. The basic idea here is that we've talked about --
20 it was talked about just a bit ago, widespread adoption and
21 use depends on getting participation of both licensees and
22 licensors in the system. And just like when you talk about
23 what is there for a patent pool and what a patent pool tries
24 to do, a RAND commitment is much the same way, it's trying to
25 say how do we come up with a set of royalties that are going

1 to allow the standard to get wide adoption.

2 And the major concern here is that, particularly with
3 interoperability standards, once the standard is adopted, the
4 playing field changes quite a bit and opens up the
5 possibility of hold-up.

6 And I'll give you a simple example. If you sort of
7 thought about just a very simple system of designing a plug
8 that you were going to plug in the wall, and before you've
9 come up with the plug and how far out the prongs should be,
10 and what shape it should be, you really could choose -- a lot
11 of alternatives would be just about as good as one another.

12 But if we decided to settle on a particular plug to which
13 I had the patent rights, after mine was the plug that was
14 chosen, I would then have, potentially, particularly once it
15 became widely adopted and consumers put those plugs in all
16 their houses, and people built devices that used that same
17 plug, I would find myself in a very enviable position, and
18 would be able to charge a lot more than what the ultimate
19 contribution I made was, which was very little, given there
20 was a lot of interchangeability beforehand.

21 So that's the kind of -- that's the sort of straw man, if
22 you want, the prototypical hold-up problem. And it's more
23 complicated than that in practice, but the idea is similar.

24 THE COURT: Mr. Harrigan, you have this shown as not
25 published on my screen.

1 MR. HARRIGAN: I don't understand why it says that.

2 THE COURT: I think you're in control of the --

3 MR. HARRIGAN: Your Honor, I don't know if you follow
4 this method, but I'm going to tender Professor Murphy as an
5 expert in economics at this point.

6 THE COURT: That is not necessary in federal court.
7 But do you have any objection, whoever is handling the cross?

8 MR. PEPE: No objection, Your Honor.

9 THE COURT: You failed to ask Dr. Murphy, though,
10 what his opinion is of Judge Posner, his colleague.

11 THE WITNESS: Well, I -- Dick is a good friend of
12 mine. We, for years, did a panel together at the management
13 conference every year. And let's say Dick is creative.

14 THE COURT: Decisive also.

15 THE WITNESS: Confident.

16 Q So the plug you were just talking about, that would be
17 with somebody with a patent on a plug, right?

18 A Yes. If somebody said there were 27 different patented
19 plugs, and we're going to choose one of them to be the
20 standard, beforehand the value of any one plug over another
21 might be close to zero, they all might be equally good. But
22 once we've chosen it, that person would have substantially
23 more leverage, and that's the root of the hold-up issue.

24 Q We're talking here about a standard that involves many,
25 many patents, or two standards that involve many, many

1 patents. How does that type -- what are the economic
2 characteristics of standards of that kind that relate to your
3 first opinion?

4 A Well, it complicates it even further, because if it was
5 just a matter of switching the plug you might say, well, all
6 I need is an adapter if I want to switch the plug. Just do
7 like I do when I travel, and I take that little adapter, and
8 I go to England and I have to plug it in. But if you're
9 talking one that has hundreds or thousands of components,
10 switching to -- once you have the standard in place,
11 switching individual components, or switching a number of
12 components is much, much more complicated. So the hold-up
13 problem becomes multiplied.

14 And it also brings up a second important issue, which is
15 often called the patent stacking problem, that it's one thing
16 to have the owner of one patent hold up the standard, that is
17 demand value ex post that was not inherent in the technology
18 itself, but was rather created by the standard. It's another
19 thing if you have a hundred people try to do that. And
20 having a large number of people doing that creates an
21 additional problem, which we call the patent stacking
22 problem. And we'll talk about that more later.

23 Q Let's say we've got a standard like H.264, can't
24 implementers who need this type of technology find an
25 alternate?

1 A Well, first off it can often be difficult for even an
2 individual to find an alternate, once they've already set
3 their technology in place. That is, before they made the
4 technological choice to say, before something became the
5 standard, you might have had lots of options available. But
6 once you've decided on the methodology, written the computer
7 code, created the products that use it, switching becomes
8 tougher.

9 Now, think about a world where there's not a single user,
10 but rather hundreds or thousands of users. And remember the
11 whole crux of the standard here is an interoperability
12 standard. It's a standard that says, I want my device to
13 work with yours. So I can't by myself decide to switch,
14 otherwise I'll break that compatibility. So what it would
15 take with hundreds of thousands of users would be them all to
16 simultaneously switch out the old component and put in the
17 new one. Well, it's difficult, for one. It's much, much
18 more difficult for many people.

19 And that's something that really, I think, we have to
20 focus on here is when you're talking about a compatibility
21 standard or communication standard, much of the value of the
22 standard is agreeing on how we're going to do it. In fact,
23 the reason you need a standard is often there are many ways
24 to proverbially skin a cat. There's many ways to accomplish
25 a given end.

1 But in order to have interoperability, we all have to
2 settle on one, we all have to choose the same plug. We have
3 to choose the same way of communicating with each other. It
4 doesn't do any good if I learn English and you learn Chinese.
5 Both perfectly good languages. But we're not going to
6 communicate very well if we choose different ones.

7 So the value is created by everybody settling on one, and
8 that's why we have standard setting committees, and that's
9 why the value is set on the standard, and that additional
10 value is subject to what you call hold-up.

11 Q Then where does the RAND commitment fit into this problem?

12 A Well, the RAND commitment says, look, I know by making you
13 a part of the standard you're going to be put into a position
14 to not just collect the value of what you've contributed, but
15 some of the value created by the standard. And, moreover,
16 with lots of contributors, if each one of you tries to
17 collect that value, that's going to cause the standard to
18 fail. It's going to be too expensive. It's going to be too
19 much risk for people who want to join the standard. And
20 people want to use it.

21 So, in order to prevent that hold-up, people have to
22 commit to say, I will charge a reasonable royalty, something
23 that will be low enough that allows the standard to be
24 successful.

25 And it's important to realize, it's not just the licensors

1 -- sorry, the licensees who lose out if there's hold-up.
2 When hold-up occurs, it hurts the other licensors, because
3 the standard is not going to be as widely adopted as it was,
4 and it hurts the ultimate consumers, who are either going to
5 pay more, or not get the product, or get a standard that's
6 less widely adopted.

7 So hold-up is not just a problem for the licensees, it's a
8 problem for the whole system, which is why SSOs go the RAND
9 direction. They say, look, it's in our interests to get the
10 standard adopted and get widespread use, make a big pie, so
11 we all can share in that to avoid that hold-up.

12 Q You referred to stacking, and we have a demonstrative on
13 that. Would you like to take a look at that and explain what
14 it demonstrates? That's No. 4006.

15 A Well, 4006 is just a really simple demonstrative intended
16 to make a very simple point. It says, look, there are in
17 this case Motorola, and there's 91 other standard essential
18 patentholders.

19 Q This is now for 802.11?

20 A This is 802.11. So we illustrate it with the Xbox. And
21 Xbox is one of the products that implements 802.11. And we
22 show here Motorola's demand for 2.25 percent of the selling
23 price of the Xbox 360. Well, if each of the other 91
24 standard essential patentholders was also asked for
25 two-and-a-quarter percent, that total royalty demand would be

1 204.75 percent. That would be there's, plus Motorola's 2.25,
2 would give a total demand of 207 percent. Obviously if I'm a
3 product producer, I can't afford to pay royalties for 802.11
4 for 207 percent of the product price.

5 But also remember, 802.11 is only a small part of the
6 functionality of the Xbox. The Xbox is primarily a gaming
7 system, not a communication system. So the idea that you
8 would pay more than double the total price of the gaming
9 system just for the 802.11 communication protocol obviously
10 doesn't fit. That's the stacking problem. You can't just
11 look at one person's rate in isolation and say, is that
12 reasonable? Does that help the system succeed? Well, the
13 system ain't going to succeed if you're charging that kind of
14 rate. And that's what you have to worry about.

15 Q So RAND addresses hold-up and stacking, is that correct,
16 or it attempts to?

17 A Yeah, I think those are two of the things. More generally
18 I think RAND is designed to find a set of rates that are
19 going to allow the standard to succeed. It's going to allow
20 the widespread adoption. And it's that widespread adoption
21 that ultimately is going to benefit all the parties that
22 participate. The sellers are going to be well off because
23 there's lots of use. The buyer is going to be well off
24 because they get to use it. And the sellers of the product
25 are going to be well off because there's, again, a big

1 market. That's the whole idea.

2 Q Where do patent pools fit into the picture of solving
3 these problems?

4 A Well, patent pools have much the same goal. Like a RAND
5 commitment, which is trying to keep rates at a level that
6 will encourage widespread adoption. Patent pools themselves
7 have that same goal. How do we make the standard successful?
8 How do we get widespread adoption? Which means, I have to
9 have rates that are high enough to get participation by the
10 sellers, the patentholders, the holders of the intellectual
11 property rights; and I have to have rates low enough to get
12 the end customers on board.

13 And the key to making it a success for everybody is
14 getting widespread adoption. That's the key. Right? How do
15 I make both buyers and sellers happy? Well, they seldom
16 agree on a price for a big-sized pie. Because I want lower
17 prices as a buyer, you want higher prices as a seller. But
18 we all can agree on a bigger pie, is what helps everybody.

19 And that's what the patent pools are about. That's what
20 the RAND commitment is about. It's about encouraging
21 widespread adoption by avoiding hold-up.

22 Q And I think you alluded to this, but if you don't solve
23 the hold-up and stacking problem, does this impact -- it
24 obviously impacts the licensors and licensees. Does it
25 impact the public?

1 A Absolutely it impacts the public, in two ways. One, if
2 you don't solve those problems, and rates for intellectual
3 property become too high, that's going to increase prices.
4 And higher prices are bad for customers. But secondly,
5 you're not going to get the widespread adoption. And the
6 ultimate biggest goal that people get from a product is
7 making it useful and popular so people can get the advantage
8 of using it, particularly when it comes to communication
9 technologies. Those are technologies where I benefit by
10 communicating with other people, and communicating with other
11 devices.

12 So, widespread adoption is a very natural goal that
13 benefits all parties, including consumers.

14 Q So there was, just before you got on the stand, we were
15 having a conversation about the royalty allocation method of
16 the MPEG LA pool, which does it on a pro rata basis. In your
17 view, are there circumstances where it would make sense for
18 one standard essential patentholder to get a higher royalty
19 than a bunch of other standard essential patentholders in the
20 same standard?

21 A From an economic standpoint you could see why that would
22 occur. If the one set of patents adds substantially more
23 value than others to the system, that certainly is something
24 you could see happening.

25 Q Does that change once the standard is adopted?

1 A Well, once the standard is adopted I think it's hard to
2 implement, because once the standard is adopted the amount a
3 patentholder can demand is going -- it's adopted in
4 widespread use, I really want to say that it's really made
5 its way into the marketplace. But once we're in that
6 situation, the demand a patentholder can make is dependent
7 not on the value they brought to the table at the beginning,
8 but really on the value of the standard.

9 Because if I can go to a user and say, look, you can't use
10 the standard, if you don't license my part of it, maybe mine
11 is a trivial part, but if you don't license my part you can't
12 use the standard, then what I'm able to collect on is not my
13 contribution, but the total contribution of all the people
14 put in, plus all the investments that those people made. I
15 built my product. I designed my product, my customers are
16 depending on this product. And you have the right to deny me
17 not just the value of your patent, but the value of the
18 entire standard. And that's the hold-up problem.

19 So, after the fact it's very hard to let that process play
20 out. If it was going to play out, it really needs to be
21 played out early, before the widespread adoption.

22 Q So this so-called ex ante period?

23 A Yes. That would be the natural time at which one could
24 use market forces to determine who brought more to the table.
25 After the fact, it's not who brought more to the table, it's

1 who has the greatest ability to hold people up. And that's
2 the problem.

3 Q And have you found any indication or information in this
4 case to suggest that Motorola's patents in either the 802.11
5 or H.264 standard are more valuable than others?

6 A My understanding is that Motorola's patent experts were
7 not able to say whether their patents were more or less
8 valuable than the average.

9 Q Would it affect your concerns about the risks of hold-up
10 and stacking if there were indications that with respect to a
11 particular standard, they actually had not been a problem, or
12 not a significant problem? Would that matter to you?

13 A No. I think, you know, that's hopefully where we can end
14 up in most markets. There are potential problems that we
15 solve. And if you look at the literature, and if you look at
16 discussions of patent stacking in the standards case, and you
17 look at discussions of hold-up in the standards case, the
18 RAND commitment plays a very central role in most analyses of
19 saying why we've been able to mitigate that problem. That
20 is, if you have the RAND commitment, and people are held to
21 that RAND commitment, and that's the important part, if you
22 have the RAND commitment and people are held to it, that they
23 have to charge reasonable royalties, then one can solve both
24 of those problems. But it requires that people be held to
25 those RAND commitments.

1 Q Okay. And does your demonstrative No. 4006 shed any light
2 on whether its, in fact, true that hold-up and stacking has
3 not been a problem in this case, in the 802.11 situation?

4 A Well, I think this more speaks to what potentially could
5 happen. The reason why you can't say it hasn't been a
6 problem up until now, to say it won't be a problem later. I
7 mean, that's true of most contracts. This is what you teach
8 in class. The whole idea of contracting is that we have a
9 contract, and we depend on the courts to enforce that
10 contract. But 99 percent of the time, or more, people reach
11 the deal and abide by the contract without ever setting foot
12 in court.

13 What's important to make the contracts work, without the
14 court, is that when you end up in the court those contracts
15 are enforced. And that's what we rely on. And the RAND
16 commitment and enforcing the RAND commitment, to me, is
17 central to making that system work and preserving a state
18 where, in fact, those problems won't materialize.

19 Q Why don't we move to your second opinion. And why don't
20 you just tell the court what that is, and the basis for it.

21 A Okay. I'm going to wait for it to come up on the screen
22 so everybody can see it. This is the second opinion, I'll
23 read it, then talk a little about it.

24 "A RAND royalty must reflect the economic value of the
25 patented technology itself and not the value attributable to

1 the standard." And that's a really key point. The basic
2 idea is this. Why do we need a standard? Well, usually we
3 need a standard precisely because there are many ways to do
4 it. And the important thing is that we agree on one of them,
5 right? That's the case where the standard is most in need,
6 when there's many different ways we could communicate. We
7 could all agree to speak Chinese. We could all agree to
8 speak English. We could all agree to write from right to
9 left. We could agree to write from left to right. In
10 principle, it doesn't really matter. But if we're all going
11 to communicate with each other, we need to decide on one or
12 the other. That's the situation where standard is the most
13 valuable.

14 But also the case is where the difference between the
15 value of the contributions and the value that can be
16 extracted ex post is the largest. Because the value is
17 largely created by the agreement, the agreement on the
18 standard. And when you have a lot of the value agreed on by
19 the standard, that's the part that people can hold-up the
20 standard for, and can demand more than they contribute.

21 Q So, in -- you're saying in order to arrive at RAND, you
22 have to figure out how to arrive at the economic value of the
23 technology itself?

24 A That's --

25 Q So basically that's the goal, right?

1 A Yeah, that's the goal. And this is more -- this is like
2 in most things in life, it's tougher to do than it is to say.
3 What you'd ideally like to do is sit down and say: Okay,
4 Kevin, you contributed this piece of technology. Bob had
5 this alternative piece of technology we could have used
6 instead of yours. Yours was some increment better than his,
7 that is the value you added, because we could have used his
8 rather than yours, so your net contribution was that amount.
9 And that's what you should get as a reasonable royalty.
10 That's ideally what you do.

11 That's not an easy exercise always to do. So what we
12 often do in economics, what we usually do is we try to say,
13 well, is there anybody else out there going through that same
14 exercise? Is there any other transaction I can look at where
15 I can learn something about what the answer to that question
16 would be? That is, what can go out there and ask this
17 ex ante versus ex post value? What is going to give me a
18 rate that serves that goal of preventing royalty stacking and
19 preventing hold-up? And that's where we're led to the patent
20 pools, because those are people that are solving the same
21 problem.

22 Q We're about to arrive at opinion 3, but I have one
23 question for you before we get there, which is, what about
24 just requiring the parties to negotiate under a RAND
25 obligation? From an economic standpoint, what does that

1 accomplish?

2 A I would say from an economic standpoint it accomplishes
3 nothing. There's an old saying that: The definition of
4 crazy is doing the same thing and expecting a different
5 result. And that's kind of what we're talking about here.
6 Because if you said, look, I'm just going to let people
7 negotiate to whatever deal they can get. And you say, okay,
8 well let me do that in a world that doesn't have a RAND
9 commitment. You get some outcome. Now you say, I've got a
10 RAND commitment, but the only thing I'm going really try to
11 do is negotiate until you reach a deal. Well, you're going
12 to get the same outcome. There is no reason that outcome is
13 going to be any different if you haven't done something to
14 change the bargaining dynamic. You have to put some
15 constraint on the system to make it so you're going to get a
16 different outcome with a RAND commitment than you would
17 without it.

18 And it's absolutely essential that we get a different
19 outcome, because by definition the deal that would be reached
20 by bargaining between the parties after the standard has been
21 adopted, and after it's in widespread use, would include the
22 hold-up. The hold-up by its very nature is in there.

23 So, in order to exclude the hold-up, to get us back to
24 this ex ante value, you have to have a constraint on the
25 bargaining system. And the constraint that people have

1 adopted is the RAND commitment.

2 But what is the teeth behind the RAND commitment? The
3 teeth behind the RAND commitment is if the guy doesn't give
4 me a deal that is RAND, there is somebody out there who is
5 going to enforce the commitment, like it is in any contract.
6 And that's why you need to have ultimately the right to go
7 and say, hey, this guy has not abided by his RAND commitment
8 and he needs to be required to do so.

9 Q Okay. So then what's your -- tell us about your third
10 opinion.

11 A Yeah. My third opinion is really that when you look for
12 comparables, and because RAND is so central in the standard
13 context, and I think that's really where we're starting from,
14 that the idea of abiding by the RAND commitment is central.
15 And remember the core of the RAND commitment is finding that
16 balance of rates that encourages widespread adoption.
17 Because that's the goal of the RAND commitment is to make the
18 standard successful.

19 That leads us to say, well, what transactions in the
20 marketplace proxy most closely for that RAND commitment? And
21 I think what we looked at is we said, well, the patent pools
22 kind of have that same objective. They're trying to get
23 widespread success, just like the RAND commitment is. So
24 we're led to the patent pools as a natural place to look.

25 Q Okay. So why don't we focus on H.264 and tell the court

1 what your view is regarding patent pools as a comparable for
2 that standard and a royalty for that standard?

3 A Okay. Well, I think the H.264 patent pool has a lot of
4 things going for it.

5 Q You're talking about MPEG LA?

6 A MPEG LA's H.264, yes. Not the failed patent pool that we
7 talked about earlier, somebody had talked about in the last
8 testimony.

9 A number of things make it nice. One, as mentioned
10 earlier today, the negotiations started as soon as the
11 standard was adopted. Right after the standard was adopted
12 they started saying, how are we going to get a patent pool?
13 Clearly the objective of the patent pool was getting
14 widespread adoption and success. That was a major, it had
15 both participation of -- it was licensors, but many of those
16 licensors were also licensees, which you've got to get both
17 sides on board to make the standard successful. It's a
18 two-way street. Okay?

19 They were successful in getting a relatively large number
20 of licensors on board and a reasonable number of licensees at
21 the same time. So those are some of the major features going
22 for them, and what makes the pool attractive. And I think by
23 both accounts they have been successful in getting widespread
24 adoption in making the standard quite successful.

25 Q And what about the subject matter of the pools? How does

1 that assist us with this analysis?

2 A Absolutely. It's the same subject matter of what we're
3 interested in here. I sort of took that for granted. That
4 is, the H.264 pools that we're looking at cover patents for
5 the same technology. And in particular, it covered patents
6 for the same standard. And, therefore, the same objectives
7 and same impediments or circumstances that would lead to
8 either widespread adoption, or the failure to achieve
9 widespread adoption. So, it's a very common ground in some
10 sense.

11 We also have the fact that MPEG LA H.264 pool uses the
12 numerical allocation. And in this case where Motorola has
13 said it's patents aren't necessarily more valuable or less
14 valuable, numeric allocation seems to fit pretty well. I
15 would also like to say one thing about numeric allocation
16 while I'm there. As an economist when you first look at it
17 you say, well, numeric allocation, how does that work? Some
18 patents are more valuable than others. I'd be worried about
19 that, potentially.

20 But there's an even more important principle that we use
21 in economics, which is, how do we know whether something is
22 reasonable? Well, we look to see whether parties in the
23 marketplace adopt that, voluntarily. And we do see that
24 patent pools tend to adopt this numeric allocation. And I
25 think as an economist you say, well, what does that tell me?

1 It tells me, yeah, it's not going to be perfect. But it's a
2 tradeoff between something that's simple, easy to implement,
3 avoids a lot of trouble, and fighting, and other things; and
4 at the same time is good enough to make the product
5 successful.

6 And even though some people, under that system, get a
7 little more or a little less than they might under some other
8 system, if that's what it takes to get the standard going and
9 to get widespread adoption, then everybody can be better off
10 than they would in the alternative, because a bigger pie
11 doesn't have to be cut up nearly as exactly to give everybody
12 what they need.

13 Q Okay. Any other comments you want to make about the
14 comparability of the MPEG LA H.264 pool, or do you think
15 we've exhausted that topic?

16 A I think we've covered most of it, yeah.

17 Q Then why don't you take us on to your approach to valuing
18 the 802.11 royalty.

19 A Okay. Now, 802.11, that pool, it has a couple of things.
20 One is --

21 Q You're talking about the Via pool?

22 A The Via licensing 802.11 pool. It certainly covers the
23 same standard. So that is a very good thing, if we're
24 thinking about what are other patents that are essential to
25 that same standard, how might they be valued, because that

1 means they're used in the same set of products, and for the
2 same ultimate purposes. So that helps.

3 You know, that pool hasn't been as successful. And they
4 particularly haven't been successful to get licensees to sign
5 on, which may say something that rates may be too high, that
6 maybe they haven't got licenses on.

7 So that to me says H.264 has lots of things. 802.11,
8 that's the downside to the 802.11 pool. I think we have to
9 say that. I think it's probably the best thing we have. But
10 the fact that it's been less successful I think makes it less
11 of a good thing than we found for the H.264.

12 Q Is this a problem that frequently arises or often arises
13 in the case of using comparables?

14 A Oh, yes, the idea that you usually don't have a perfect
15 comparable. And, for example, if I was valuing a house, I
16 may be able to find some houses that are similar, but it's a
17 relatively unique house, and I may have to settle for things
18 that aren't as close as I could in another situation.

19 Q Okay.

20 A So it's not unusual. But it's still -- remember, the key
21 features, it was still designed to foster widespread
22 adoption, like the RAND commitment was. And it was still,
23 for the same end-uses. So those features are very important
24 parts that I still think make the 802.11 the best thing we
25 have.

1 Q Okay. Do you have any information about the extent to
2 which 802.11 standard essential patents are actually licensed
3 in the market?

4 A Well, I think one of the striking things you see when you
5 look at the market is there's very little licensing of 802.11
6 patents, generally. Even the people who are not in the pool,
7 and even Motorola has not widely licensed these patents.
8 And, therefore, there's not that many to look at within the
9 standard. That tells you one thing. It tells you, you might
10 say in some sense if you're looking for the most common rate
11 out there, the most common rate is actually zero, that most
12 people are actually collecting. That is certainly the
13 dominant rate that occurs in the marketplace in the 802.11
14 space.

15 Q I think you've also looked at Motorola's approach to
16 arriving at a RAND rate in this case. And would you tell us
17 what your views are with regard to its reliability as
18 compared to the reliability of the method you've just
19 outlined?

20 A Yes. So Motorola experts put forward a number of patents
21 as comparables. And the biggest problem I see is the vast
22 majority of them are cell phone patents, and in particular,
23 patents for cell phone devices, for cellular devices. And if
24 you think about, well, what determines the value of a patent?
25 Well, one of the key things is how central is it to the

1 product? Particularly you think about it as a percentage
2 royalty of the product price.

3 And to me when you think about it as an economist, you
4 say, well, I know something about the fees people charge for
5 cell phone patents for cell phones, how is that a reliable
6 comparison for the H.264 patents for the Windows operating
7 system? I mean, a cell phone patent is so much more central
8 to the operation of the cell phone. Like, it's hard to have
9 a cell phone that will do much good if it can't communicate
10 as a phone. Whereas, an operating system, like the Windows
11 operating system, H.264 functionality, in particular the
12 component of H.264 functionality contributed by Motorola's
13 technology, relative to the next best way of achieving that
14 same component of the H.264 technology, relative to the
15 Windows operating system, is just like night and day. I
16 don't know how you could use the rates for one to say what
17 the rates for the other ought to be. Because you have a
18 technology that's central to the function of one product, and
19 a very small part in terms of overall functionality of the
20 Windows operating system.

21 Even if you go to the Xbox and say, I want to look at
22 802.11, and the slice of 802.11 that's due to the Motorola
23 patents, and you compare that, again, to the functionality of
24 a cell phone with a cell phone patent, it's just -- they're
25 just not in the same comparison. I don't see how one really

1 helps me to know the other.

2 Knowing what a piece of technology that is central to the
3 function of one device tells me about how much a different
4 piece of technology is worth, that's not central really to
5 the function of a different device, is really something from
6 an economic standpoint seems incredibly hard to justify.

7 Q Don't some of the comparables Motorola relies on include
8 some of the standard essential patents in the standards?

9 A They do. But they include other things. So, for example,
10 if I'm licensing somebody who produces a cellular device,
11 cell phone patents, and 802.11 patents, or H.264 patents, I
12 can't extract from the value of that license the value of the
13 802.11 patents, or the H.264 patents, particularly because
14 you would think that the majority of the value is being
15 contributed by the cellular technology. So those mixed
16 licenses, to me, for the same reason that the standalone cell
17 licenses, aren't very useful for coming up with what's the
18 market value of those things.

19 Now, also there's another issue, which is many of these
20 licenses were negotiated well after the standards were
21 adopted. And so those also could have an element of hold-up
22 in them. But even if they didn't have the hold-up in them,
23 you still have this comparability problem, that cell phone
24 patents are much more central to a cell phone than are the
25 patent at issue in this case, and the device that's at issue

1 in this case. It seems to me it's hard to go from one to the
2 other.

3 MR. HARRIGAN: May I have just a moment here, Your
4 Honor? No further questions.

5 CROSS EXAMINATION

6 BY MR. PEPE:

7 Q I'll introduce myself, Dr. Murphy. My name is Steve Pepe,
8 and I'll be asking you a few questions this afternoon. One
9 of the subjects you addressed in your direct examination is
10 patent licenses. In fact, you just finished with those.
11 Now, you've never negotiated a RAND patent license; is that
12 right?

13 A I have not negotiated patent licenses. I do help
14 negotiate licenses for other things that are subject to a
15 reasonable fee criteria, particularly the work I do for
16 ASCAP.

17 Q But no RAND patent licenses, correct?

18 A No, not patent. Those would be for performance rights.

19 Q You're not an expert in patent licensing or patent
20 licensing negotiations, correct?

21 A I would say I'm an economist, so I can talk about the
22 economic aspect of those things. But, no, I wouldn't
23 consider that's my area of expertise. I'm an economist by
24 training.

25 Q Thank you. In your direct testimony you reference

1 Standards Setting Organization, and I'm going to use the
2 abbreviation SS0 for short. Prior to this case you haven't
3 had any specific dealings with the SS0s that are at issue in
4 this case, the ITU and the IEEE; isn't that right?

5 A No, I don't think I've had any dealings with those. I've
6 had dealings with measurement standard organizations, but not
7 these.

8 Q You've never been employed by or been a consultant to the
9 ITU or IEEE?

10 A No, I have not.

11 Q You have never been qualified as an expert in SS0s or how
12 they operate, correct?

13 A Not in particular. Again, I'm an economist.

14 Q Thank you. In your direct testimony you talked about the
15 term RAND, correct?

16 A Yes, I did.

17 Q And you also mentioned that you have about 65 or 70
18 articles that canvas a broad range of topics, right?

19 A Yes.

20 Q But prior to this case, you had never published any
21 articles about RAND, correct?

22 A No, I don't think I have, no.

23 Q Thank you. And prior to getting involved with this case,
24 you had not given any expert testimony on RAND obligations or
25 RAND commitments, correct?

1 A Well, I did testify before the ITC.

2 Q When I say, "this case," I mean this global dispute
3 between the parties.

4 A I just wanted to be clear, I think that would technically
5 be a different case, but it's the same matter.

6 Q Same matter.

7 A That was the first time I've testified about RAND.
8 Although, again, I've done a lot of work on what constitutes
9 a reasonable royalty.

10 Q Thank you, Dr. Murphy. And in your direct testimony you
11 also addressed the subject of patent pools, correct?

12 A Yes, I did.

13 Q And you've never been qualified as an expert in patent
14 pools, correct?

15 A Well, I'm an economist.

16 Q You've been an expert for Microsoft in about ten cases
17 during the last ten years; isn't that right?

18 A I would say that's roughly right, yes.

19 Q During that time period, roughly about a quarter of your
20 consulting fees have come from Microsoft; is that correct?

21 A Probably not. I think that might have been true at one
22 time.

23 Q Is it higher?

24 A Less. It's less today. Substantially less.

25 Q Now, you talked about the technical strength of Motorola's

1 802.11 and H.264 patents very briefly, said you didn't see
2 any evidence of the relative strength of Motorola's patents.
3 Now, you haven't done an assessment or evaluation of the
4 technical strengths of Motorola's 802.11 and H.264 patents;
5 isn't that right?

6 A I think you mischaracterized my testimony there. I don't
7 think I said what you just said I did.

8 I can answer your question, but your preamble I think
9 misstated my testimony.

10 Q You did not consider the expert reports of Motorola's
11 technical witnesses in reaching your opinions, correct?

12 A I did not particularly, no. I think that's not my area of
13 expertise. My understanding is that, and presumably they'll
14 speak for themselves, my understanding that when asked
15 whether their patents would rank in the top half or bottom
16 half, they were unable to say which way they went.

17 Q My question, sir, was the technical expert reports in this
18 case, you did not rely upon those opinions and conclusions in
19 those expert reports, correct?

20 A No, I did not.

21 Q Thank you sir. Thank you.

22 Now, during your testimony you talked about how the
23 RAND commitments and standards need to attract both licensees
24 and licensors, correct?

25 A I think that's right. What you need to do is you need to

1 be able to get widespread adoption.

2 Q Yes.

3 A Let me just finish.

4 Q I asked a very simple straightforward --

5 THE COURT: Mr. Pepe, we have a rule around here.
6 You talk, then he talks. Don't cut him off.

7 MR. PEPE: Yes, sir.

8 A I'm just saying, you want to make the standard attractive,
9 so you have to get people to contribute technology. And you
10 have to have the technology and the standard that's going to
11 make it attractive. But then it has to be priced in a way
12 that makes buyers want to use it. Because the value of
13 something, particularly a communication technology, depends
14 on widespread adoption.

15 Q You would agree that the patent policies in the RAND
16 commitment seeks to balance the rights and interests of the
17 patentholders and of the implementers; is that right?

18 A Yes. Although I would definitely add that the RAND
19 commitment is intrinsically tied up in preventing the hold-up
20 I talked about before. As an economist, and if you read the
21 literature in economics on RAND commitments, hold-up is
22 central to the whole discussion.

23 Q We'll get to the RAND commitment shortly.

24 You agree the SSO patent policies should take a
25 balanced approach that does not unduly burden patentholders

1 but encourages them to contribute innovative technology to
2 the standards. Correct?

3 A I would say as a general matter you do want to get
4 innovative technology. You want to produce a good standard
5 that's going to be widely used.

6 Q You would agree that the patent policy should not undercut
7 the value of patented technologies that contribute to the
8 standard, right?

9 A Well, you've got to be careful on what you mean by value.
10 If you're talking about the ex ante value, the value
11 contributed by the patent, not the value contributed by the
12 standard, I would agree with that. But if you're going to
13 start talking about the value that somebody could extract
14 after the fact, which by definition would include the
15 hold-up, then I would not agree.

16 Q You would agree when the standard is being formed, that if
17 patentholders do not believe they're going to get fair value
18 for their patents from licensing, they may not contribute
19 their patents to the standard; isn't that correct?

20 A Yes. But you've got to be careful, because if they think
21 that people are going to be able to hold -- other people are
22 going to be able to hold other people up after the fact,
23 they're not going to get fair value either. In order to make
24 it successful, you have to prevent the hold-up. And the
25 hold-up -- preventing a hold-up is not just in the interests

1 of licensees, it's in the interest of licensors as well.

2 Q If you don't have the best technology in the standard,
3 that puts the standard at risk, and it may not be successful,
4 correct?

5 A Yeah. I think in general you want better technology. As
6 with everything in life, you've got to trade off costs and
7 benefits. So you don't always want to say, I want the best
8 of everything. I don't go out when I buy a car and I say, I
9 want the best car money can buy. I want the car that makes
10 the most sense.

11 Q Let's turn to the patent pools, one other topic you
12 discussed during your direct. Now, patent pools are
13 voluntary organizations, correct?

14 A Joining a patent pool, yes, would be a voluntary activity.

15 Q That would be the case here with both the MPEG LA H.264
16 and the Via licensing 802.11 pools, right?

17 A Yes. They would be voluntary organizations that one could
18 join.

19 Q And a company shouldn't be forced to join a pool, correct?

20 A No, I would say they shouldn't be forced. No.

21 Q Thank you, sir. Thank you.

22 And as we heard Mr. Glanz testify about earlier, there
23 may be lots of reasons why companies would decide not to join
24 a pool. You have no quarrel with that statement, correct?

25 A I don't have a quarrel with that statement that there are

1 reasons why people don't join.

2 Q Thank you. And you agree that the licensing terms of a
3 pool agreement are a, "take-it-or-leave-it" proposition,
4 correct?

5 A Well, I'm not sure that's right in terms of how they were
6 arrived at. I think after the fact the pools generally set a
7 fee and they don't negotiate. But the setting of the fee
8 itself, as we heard earlier today, involves a back and forth
9 in terms of this balancing act between getting the two sides
10 on board. So it's negotiated ex ante, not negotiated ex
11 post.

12 Q Once the terms are set and the pool is formed, those
13 agreements are basically a, "Take it or leave it"
14 proposition. The licensees either take it or they leave it,
15 correct?

16 A But every agreement is that after you've agreed -- I mean,
17 I don't understand your distinction. Once we've agreed, it's
18 take it or leave it. The way we got there was negotiation.
19 And we got there in negotiation here between the people that
20 were sitting there negotiating over setting the patent pool
21 rates. And there is --

22 Q I don't mean to cut you off. Let me try a different
23 question, because I'm trying to get to a different point
24 here. Once the terms of the agreement are set, if a licensee
25 doesn't like -- potential licensee doesn't like the terms,

1 they can't go to the pool and say, "I want to renegotiate
2 this deal." They can't do that, correct?

3 A No, not generally, no. But that's true of lots of
4 transactions in the world.

5 Q Thank you. The same would hold for potential licensors.
6 Once the terms are set, a potential licensor can't go to the
7 pool and say, "I want to renegotiate this deal," correct?

8 A No, not quite. Because there is scope for changing the
9 rates within the pool over time, as things change. I mean,
10 for example, as other people are added, and I believe both of
11 these pools had provisions for some adjustment to the rates,
12 usually it's capped and usually there's a bound, but there
13 often is scope for some adjustment to the rates.

14 Q Now, you heard Mr. Glanz testify, and I believe you also
15 testified, that the MPEG LA and Via licensing pools, they
16 distribute royalties based upon a patent allocation or
17 proportional royalty structure; is that correct?

18 A Yes. I believe that's not just common for them, but many
19 pools use that structure.

20 Q Now, you testified at your deposition that a reasonable
21 royalty for a patent should be tied to the technical merit of
22 the patent. Do you still agree with that?

23 A I think that would be the ideal, yes, that's what you'd
24 like to shoot for.

25 Q You would agree with me that in the Via pool, the Via

1 licensing pool, and the MPEG LA H.264 pool, there's not an
2 individual assessment of the technical merit of a patent in
3 deciding how much of the royalties that patent should get,
4 correct?

5 A I think they've decided that the costs of actually going
6 through that exercise outweigh the benefits. And I think
7 that's an important piece of economic evidence that people --

8 Q I'm sorry.

9 A That that was a voluntarily chosen system that emerged in
10 the market, and survived, and has been successful.

11 Q Just to be clear, sir. Once a patent is in a pool, the
12 Via and MPEG LA pools don't look at patent A and patent B,
13 and say, well, A is more valuable so it gets a higher
14 royalty, and B is not as valuable so it's going to get a
15 lower royalty. Those two patents will get the same exact
16 royalty, correct?

17 A They do. But we have to think about how we got to that
18 outcome. Remember --

19 Q I was just asking, sir, about whether or not there's an
20 individual assessment of these patents.

21 A I am trying to understand. I think we're ultimately
22 trying to figure out why they do that, and whether that makes
23 sense.

24 Q What I'm trying to get at, sir, is how the royalties are
25 allocated.

1 A Yeah, that's how they're allocated.

2 THE COURT: I get to interrupt you. It's time for
3 the afternoon break, counsel. We'll be back at 2:45.

4 (The proceedings recessed.)

5 By Mr. Pepe:

6 Q Dr. Murphy, let's turn to the Via Licensing 802.11 pool.
7 Now, Microsoft decided not to join the Via 802.11 pool as
8 either a licensor or licensee, correct?

9 A That's correct.

10 Q And that was perfectly reasonable for them not to join the
11 pool, would you agree?

12 A I would agree that is perfectly reasonable.

13 Q And Microsoft shouldn't be forced to join the pool,
14 correct?

15 A No, they should not be forced as a licensee or licensor.

16 Q And like Microsoft, Motorola is not a licensor or a
17 licensee of the Via Licensing 802.11 pool, correct?

18 A That's correct, they are not either.

19 Q So Motorola made the decision to keep its patents out of
20 the pool, correct?

21 A Yes, they did.

22 Q So the rates paid by licensees don't include rights to
23 Motorola's patents or technology; isn't that correct?

24 A They are not in the pool, so it wouldn't be included, no.

25 Q Thank you. Now, let's pull up Exhibit 1173. That is one

1 of the confidential exhibits. And you should have a binder
2 in front of you with that exhibit. It is kind of small.

3 Now, in this chart which you prepared, you are using an
4 ex ante/ex post dividing line for 802.11 of September 16th,
5 1999; is that correct?

6 A That's correct.

7 Q Now, the Via Licensing pool formed in 2005?

8 A Yes, it was.

9 Q Using your ex ante/ex post dividing line, the Via
10 licensing pool was six years ex post, correct?

11 A That is correct. I did discuss that in my report.

12 Q Now, you also testified the Via Licensing 802.11 pool was
13 not successful in attracting licensees, correct?

14 A Yes, it wasn't very successful. It has some, but not very
15 many.

16 Q Well, let's take a look at how successful they were at
17 attracting licensors. Can we pull up Exhibit 1125. That is
18 also in your binder. This is a printout from a web page from
19 Via Licensing's website. You can see at the bottom it is
20 dated September 5th, 2012. Do you see that at the bottom
21 right?

22 A Yes.

23 Q And do you see in the upper left-hand corner it says
24 802.11 A through J licensors?

25 A Yes.

1 Q And it lists just five licensors as of September 5th,
2 2012, correct?

3 A That's correct.

4 Q And I believe in one of your demonstratives you indicated
5 there were around 90 SEP holders of 802.11 patents?

6 A I don't remember the precise number, I think it was 93 --

7 Q 91, 92. You would agree only about five percent of
8 potential licensors have joined the Via Licensing Group,
9 correct?

10 A Yes. I would think the licensee side as well. They
11 haven't been very successful.

12 Q They haven't been very successful. Now, let's actually
13 take a look at your demonstrative 406. I think you called
14 this a simple demonstrative of what, quote, potentially could
15 happen in the industry, correct?

16 A I think it is more illustrative, yeah. I wasn't saying
17 this is what would happen. It is just to make the point of
18 -- you know, sort of what could happen under the stacking.

19 Q Now, this demonstrative assumes that all 91 licensors
20 would go out and seek to license their patents, correct?

21 A In order to get that full amount, that's what you would
22 need, yes.

23 Q Now, not only does it assume that they would go out and
24 try to license, but they will actually get two and a quarter
25 percent for each of their portfolios for 802.11, correct?

1 A That's what it would take to get the 207. To get
2 multiplication of what any one person gets, you don't need
3 all that. Yes, to get the 207 percent, that's what you would
4 need.

5 Q You agree that most standard-essential patent licenses are
6 cross licenses, right?

7 A Yeah, there would tend to be cross licenses in there, but
8 that doesn't mean there wouldn't be royalties. There are
9 royalties even in cross licenses.

10 Q You reviewed around 60 Motorola standard-essential patent
11 licenses, roughly?

12 A Yes.

13 Q And were all 60 of them cross licenses?

14 A I don't know if all 60 were. I think probably pretty
15 close to that. That doesn't mean they didn't have
16 substantial royalties in them.

17 Q Right. When you have a cross license there tends to be
18 royalty rates flowing both ways, so there is a net lower
19 rate, correct?

20 A Right. There is many ways you could do it. You could
21 have two rates, and net them, or you could net a rate, you
22 could do lots of different things.

23 Q Now, your demonstrative 4006 doesn't take into
24 consideration that there would be or may be cross licensing
25 which would push down that net rate, correct?

1 A Yeah, that's true, it could. You are starting from a
2 really high number here.

3 Q Well, your demonstrative makes no attempt to account for
4 potential differences in size, value, strength and importance
5 between the patents of the other 91 SEP holders and
6 Motorola's, correct?

7 A Yeah, that's why it is a demonstrative, not a prediction.

8 Q There is a lot of assumptions built into this
9 demonstrative?

10 A Yeah, it is illustrative.

11 Q Now, focusing on the 802.11 standard, it was released
12 about 13 years ago, correct?

13 A Yeah, I think that would correspond. 802.11 --

14 Q You agree that as of the date you formulated your opinions
15 in this case there was no 802.11 stacking problem in the
16 industry, correct?

17 A You know, there has been a debate on that. I think
18 Farrell, Shapiro and Lemley hinted there might be. I think
19 other people have taken issue with that. I certainly haven't
20 reached the opinion that that historically has been a
21 problem. My testimony was more that if you allow people to
22 engage in the kind of hold-up that I would characterize as
23 going on, that certainly is a potential problem.

24 Q Yes or no, Dr. Murphy, currently is there an 802.11
25 stacking problem in the industry?

1 A I think the economic literature is in debate on that. I
2 am just telling you what the literature says.

3 Q Can we pull up Dr. Murphy's deposition transcript,
4 Page 83, Line 16 to 25. I think there is a binder there that
5 might have that in there. Question: "So you agree that in
6 the approximately 13 years since the standard was first
7 adopted, commentators -- many people believe there is not a
8 stacking problem related to 802.11?" Answer: "I don't
9 think, one, that's materialized itself. I think there is a
10 potential stacking problem. I don't think it's really
11 materialized per se. I don't think it is really materialized
12 as, you know, lots of people charging substantial license
13 fees to date. It's one of the reasons it's important to get
14 this case right."

15 Sir, were you asked that question and did you provide
16 that answer?

17 A Yeah, and I would agree with that answer today. I think
18 your question was prefaced with "many people" there. I agree
19 there are many people who believe that. I am saying there
20 are some people that would disagree.

21 Q You would agree there is no stacking problem that has
22 materialized?

23 A I would say it hasn't. In my opinion, based on the
24 evidence I have seen, I don't think it is there to date. As
25 I stated in my answer here, I think there still is a

1 potential problem, and particularly, if you allow hold-up to
2 occur, it is much more likely to be a problem.

3 Q And the H.264 standard has been around for about a decade,
4 right?

5 A Yeah.

6 Q Around a decade, maybe a little less?

7 A A little less. A little less. Close. Coming up on that
8 anniversary, I guess.

9 Q And you certainly agree that as of the date you formulated
10 your opinions in this case there was no H.264 royalty
11 stacking problem in the industry, correct?

12 A I don't think there has been yet. I think patent pools,
13 in particular the H.264 pool, has helped, as have RAND
14 commitments, more generally.

15 Q Now, let's talk about licensing. Over the past several
16 decades there have been hundreds of standard-essential
17 licenses that have been negotiated across all different types
18 of standards, would you agree with that?

19 A I'm sorry. License -- standard-essential licenses? You
20 mean licenses for standard-essential patents?

21 Q Yes.

22 A Yes, there have been licenses negotiated for
23 standard-essential patents.

24 Q And you would agree that many of these licenses have been
25 negotiated ex post?

1 A Yes, there have been many negotiated ex post.

2 Q Is it your opinion that licenses that are negotiated ex
3 post are in effect hold-up simply because they were
4 negotiated ex post?

5 A I think there is that potential. I think we live in an
6 environment right now, and up until now, where the RAND
7 commitment hasn't been fully litigated through. I think in
8 that world, whether or not it includes hold-up is an open
9 question and likely to vary across different licenses,
10 because it is not clear exactly what the RAND commitment is.
11 I think that's the reality we live in. And that I think is
12 one of the reasons why this case is in some sense very
13 important.

14 Q So if Microsoft was a licensor in a standard-essential
15 patent license that was negotiated ex post, you think there
16 would be the potential there that Microsoft held up the
17 licensing?

18 A There certainly -- Without knowing any more, you would
19 say you would have to leave that open as a possibility,
20 because the negotiations took place in an environment in
21 which hold-up was possible. Whether they did or not, you
22 know, we would have to get further into the details.

23 Q But you would agree that ex post bilateral negotiations
24 can lead to a RAND license, right?

25 A If they are done in the right context. And that doesn't

1 mean they always do. I think it would be a lot clearer if it
2 was resolved exactly what RAND entitles people to.

3 Q So the answer to my question was, yes, ex post bilateral
4 negotiations can lead to a RAND license?

5 A If they were subject to the right external pressure. If
6 they are not subject to the right external pressure, then
7 they wouldn't as a matter of economics. If it is just the
8 negotiation is going to be, negotiate for whatever you can
9 get, and whatever you get is what RAND is determined to be,
10 then I would say no, that is just not consistent with getting
11 a RAND rate.

12 Q Let me try to come back to my question one more time.
13 Dr. Murphy, do you agree that ex post bilateral negotiations
14 can lead to a RAND license, yes or no?

15 A Yes, under the right external conditions.

16 Q Thank you.

17 A Under the wrong external conditions, no.

18 Q Let's talk in particular about Motorola's licenses. Now,
19 you reviewed about 60 of them, correct?

20 A Somewhere in that neighborhood, yes.

21 Q And all of these were negotiated under a RAND commitment,
22 correct?

23 A I can't say every last one, but I think the vast majority
24 were, yes.

25 Q Now, during direct you testified that an important

1 principle that we use in economics, which is, how do we know
2 whether something is reasonable? Well, we look to see
3 whether the parties in the marketplace adopt that
4 voluntarily. Do you recall that testimony?

5 A Yes.

6 Q And do you stand by that testimony?

7 A Yes, I do.

8 Q Now, sir, all 58 or 59 of those Motorola licenses, they
9 are all market transactions, correct?

10 A They are, and they are all engaged in an ex post
11 environment. So you are going to get whatever that ex post
12 environment produces.

13 Q Sir, do you have any specific evidence that any of
14 Motorola's licenses were the product of hold-up?

15 A Again, I know we are not supposed to mention names. There
16 is one where there was -- there was an injunction sought. An
17 injunction in an ex post environment by its very nature
18 involves an element of hold-up, because an injunction would
19 deny you the right not just to the patent in question but to
20 the standard. Things that involve injunctions inherently
21 bring hold-up into the equation.

22 Q You are aware that that company that we are talking about
23 had an earlier license from 2003, correct?

24 A Yes. But once you are in an ex post environment there is
25 definitely the possibility of hold-up.

1 Q Now, that 2003 license, you have no opinion -- you
2 testified at your deposition that you had no opinion as to
3 whether or not that license was effectively a hold-up?

4 MR. HARRIGAN: Your Honor, I think we are kind of
5 highlighting the problem here, because we don't know -- How
6 can we do redirect on this with our hands tied behind our
7 back with regard to --

8 MR. PEPE: What I will do is I will move on --

9 THE COURT: Mr. Pepe, I am going to strike that whole
10 line of testimony. It seems to me that is a fair comment.
11 If you want to raise the name of the company and have it out
12 on the record, then that's fine.

13 MR. PEPE: I am going to try this a little
14 differently then.

15 THE COURT: So I am striking the testimony?

16 MR. PEPE: Yes.

17 THE COURT: All right.

18 By Mr. Pepe:

19 Q Sir, I believe you testified on direct that these 59
20 license -- 58 licenses could have hold-up, correct?

21 A Yes. I don't remember my exact testimony, but I would
22 agree with that, that because they were negotiated after the
23 fact they could have hold-up.

24 Q They could have hold-up?

25 A Yes.

1 Q Let's talk about comparables for a moment. You mentioned
2 a lot of the licenses on that list were to cell phone
3 companies that involved cell phone patents, right?

4 A Yes, a very large number were.

5 Q Well, there is at least one company on there that doesn't
6 sell cell phones, right? That's Vtech?

7 A Yes. That license has substantial other issues with it,
8 but not that other one.

9 Q Was that Vtech license the product of hold-up?

10 A No. I would say that was a different form of the kind of
11 problems that make interpreting licenses difficult.

12 Q Let's pull up Exhibit 2832, please. Now, this is an
13 e-mail from Nick Delaney at Vtech to Kirk Dailey at Motorola,
14 correct?

15 A Yes.

16 Q And this is dated October 7th, 2011?

17 A Yes.

18 Q And the first paragraph says, "Kirk, we have an interest
19 in licensing your WiFi 802.11 and MPEG video portfolios,
20 particularly if it would give us some measure of protection
21 on some future products on our roadmap. We see a convergence
22 of technologies on future home communication phones/devices
23 that would use some of these technologies." Do you see that?

24 A Yes, I do.

25 Q So this was Vtech coming to Motorola saying, hey, we are

1 interested in a license to 802.11 and H.264, you would agree?
2 A Yes. But they were also interested in what they mentioned
3 in the second paragraph, which was settling their existing
4 dispute, where Motorola contended -- I think at the time,
5 that they owed Motorola \$50 million for things having to do
6 with their cordless phone. And they negotiated -- And he
7 clearly states here that he wants to do this as part of that
8 agreement. And as an economist I can tell you, when you see
9 something like that, where you have terms that were
10 negotiated together, you can't interpret the deal you got on
11 one independent of the other one. I mean, it is a package
12 deal, as the guy is making clear here. Just read the second
13 paragraph.

14 Q Sir, my question was pretty focused. It was simply Vtech
15 came to Motorola and said we are interested in a license to
16 802.11 and H.264, yes or no?

17 A I would say that is not the message they sent. They say
18 we are interested in that as part of settling the
19 agreement -- this dispute. That is a correct statement of
20 what they were saying.

21 Q And they wanted a license for future products, right?

22 A Yes, as part of settling this other dispute. And I think
23 you just want to say what it is.

24 Q Let's take a look at what Vtech actually offered to
25 Motorola. You can see there is a table there. And they

1 offered a rate that ranged between 0.5 percent and
2 2.5 percent, depending upon the price of the end product,
3 correct?

4 A Yes, that's what is in the table.

5 Q Now, you testified about the Vtech agreement at the ITC
6 hearing between the parties?

7 A Yes.

8 Q And do you recall that the royalty rate was 2.25 percent
9 for Motorola's 802.11 and H.264 portfolios?

10 A I believe that's correct, that's what is in the Vtech
11 license that was reached as part of the settlement of this
12 other dispute.

13 Q Now, sir, basic math, the 2.25 percent is less than the
14 highest royalty rate that Vtech offered, which was
15 2.5 percent in this letter -- in this e-mail, correct?

16 A Yeah, but it is a flat royalty. You don't want to compare
17 the highest to the flat one. That is like --

18 Q Just looking at the simple numbers, two and quarter is
19 less than two and a half?

20 A And is bigger than 0.5.

21 Q And 0.5 is well higher than any of the Via -- the Via
22 Licensing 802.11, correct?

23 A Yeah. I really think on this one you really need to take
24 into consideration the fact that the \$12 million settlement
25 that was ultimately reached as part of the same agreement for

1 other patent issues that were between the parties.

2 Q Well, this e-mail refers, as we discussed, future
3 products, right?

4 A I agree. But I would be remiss as an economist if I
5 didn't point out when you have multiple parts of an agreement
6 you can't just pull each one out and look at each one
7 independently.

8 Q Sir, I am not talking about the agreement, I am just
9 talking about the e-mail that refers to future products. It
10 is a simple question.

11 A It does refer to future products, but it also refers to
12 doing this as part of settling their past dispute.

13 Q I am focusing on the language about future products. I
14 would ask you to turn in your binder to Exhibit 3396. Now,
15 sir, this is a user manual for Innotab2S. Do you see that?

16 A Yes, I do.

17 Q Do you see in the upper left-hand corner it indicates it
18 is a Vtech property?

19 THE COURT: Let me stop you. Are you moving the
20 admission of 2832?

21 MR. PEPE: I will offer 2832.

22 THE COURT: You need to do it as you go along. You
23 don't wait until you get done with everything and go back.
24 Any objection to 2832?

25 MR. HARRIGAN: Your Honor, we don't have any

1 objection, subject to reviewing what may or may not be in the
2 redaction.

3 THE COURT: All right.

4 MR. PEPE: While we are at it, can I also offer 1173,
5 1125, 2832?

6 THE COURT: Slow down. Your first one?

7 MR. PEPE: 1173.

8 THE COURT: Mr. Harrigan, any objection?

9 MR. HARRIGAN: No objection.

10 MR. PEPE: 1125.

11 THE COURT: He needs to comment.

12 MR. PEPE: I think he did.

13 MR. HARRIGAN: No objection.

14 THE COURT: Then it is admitted.

15 MR. HARRIGAN: The same for 1125.

16 THE COURT: Then 1125 is admitted.

17 MR. PEPE: 2832.

18 MR. HARRIGAN: I have to find it.

19 THE COURT: 2832 is the one we were just looking at.

20 MR. HARRIGAN: No objection, subject to finding out
21 what's in the redaction.

22 THE COURT: All right. Provisionally admitted.

23 (1125, 1173 & 2832 admitted.)

24 By Mr. Pepe:

25 Q Turning back to 3396, are you aware that Vtech recently

1 introduced a new tablet product?

2 A Yeah. It is a toy tablet, yes.

3 Q And in this manual, if I could ask you to turn to Page 2
4 -- or Page 1, which is the introduction. You see that it
5 says, "Thank you for purchasing Vtech Innotab2S the WiFi
6 anywhere tablet." Do you see that?

7 A Yes.

8 Q This indicates that this product is WiFi compliant or has
9 WiFi technology, correct?

10 A My understanding is they have a WiFi version, yes.

11 Q Could I ask you to please turn to Page 22 of the manual.
12 The first sentence reads, "Innotab2S supports Jpeg and
13 MJpeg/H.264 baseline profile formatted video playback." Do
14 you see that?

15 A I didn't find it yet. Yes, I do.

16 Q So this indicates that the Innotab2S is compliant with
17 H.264, correct?

18 A I believe it is.

19 Q Now, I actually happen to have an Innotab2S with me. You
20 probably can't see it from there, but it says WiFi here, WiFi
21 here, WiFi here, WiFi here, WiFi here, and WiFi here. Six
22 times on the packaging on the front cover it indicates that
23 it is WiFi compliant?

24 THE COURT: Counsel, is this an exhibit?

25 MR. PEPE: Just a demonstrative.

1 THE COURT: Don't parade things around that are not
2 an exhibit or not disclosed as a demonstrative.

3 MR. PEPE: Okay.

4 By Mr. Pepe:

5 Q Now, we heard testimony earlier today that Microsoft
6 introduced its own tablet product, right, the Surface?

7 A Was I supposed to answer that question? I thought you
8 were --

9 THE COURT: I think he was testifying in his own
10 right. That's why we are going to move on.

11 By Mr. Pepe:

12 Q I was going to point out that somebody in the marketing
13 department thought it was important to put WiFi compliant --

14 MR. HARRIGAN: I thought you said we weren't going to
15 do that.

16 THE COURT: The objection is sustained.

17 By Mr. Pepe:

18 Q So we heard from Mr. De Vann earlier today, he talked
19 about the Surface tablet?

20 A Yes.

21 Q And he indicated that the Surface supports H.264, correct?

22 A Yes.

23 Q And it supports 802.11?

24 A Yes, it does.

25 Q And it is a noncellular product?

1 A Yes, it does.

2 Q And I will represent to you that the Innotab2S is also a
3 noncellular product.

4 A Yes, it is, I believe.

5 Q So you would agree with me that if Vtech was selling the
6 Surface tablet it would be paying 2.25 percent of the net
7 selling price for the use of Motorola's H.264 and 802.11
8 portfolios, correct?

9 A I don't think you can conclude that, because I don't think
10 the prospect of them selling that tablet was there when that
11 license was negotiated. I am going to negotiate a license
12 based on the prospect of what I am going to sell.

13 Q If Vtech was selling the Surface tablet, sir, under the
14 terms of the Vtech agreement, it would be paying 2.25 percent
15 of the net selling price, correct?

16 A It would, under the agreement. But I don't know what
17 logic you use to hold the agreement constant as you change
18 products and companies. I mean, if they were selling a
19 cruise ship with built-in WiFi, I assume they wouldn't be
20 paying 2.25 percent of the cruise ship. I am just pointing
21 out you can't just move products across licenses and
22 companies and assume that the same negotiations would have
23 taken place. I would also point out that everything we are
24 talking about here is about the value of the standard. Never
25 mind.

1 Q Sir, Vtech agreed to 2.25 percent for Motorola's 802.11
2 and H.264 portfolios, correct?

3 A They did as part of settling that broader agreement. I
4 think you need to take that into account.

5 Q And they are selling a tablet that is WiFi compliant,
6 H.264 compliant and is noncellular, correct?

7 A It is a tablet, but it is a toy. That is an important, I
8 would think, distinction.

9 Q Well, sir, the Surface is 802.11 compliant, H.264
10 compliant and not cellular, right?

11 A Yeah, but it is not a toy.

12 MR. PEPE: Thank you. No further questions.

13 REDIRECT-EXAMINATION

14 By Mr. Harrigan:

15 Q In this book that you have been looking at there is an
16 Exhibit 13, I think. It is the first one in the notebook.

17 A Yes.

18 Q And it is a patent license agreement between Motorola and
19 Vtech?

20 A Yes.

21 Q Is this the one that has been under discussion?

22 A Yes, I believe it is.

23 Q And would you turn -- I believe you said that you thought
24 that Motorola had a patent infringement claim against Vtech
25 of about \$50 million relating to cordless telephones?

1 A Yes.

2 Q And would you turn to Page 6 of Exhibit 13?

3 A Yes, I am there.

4 Q And Paragraph 4.1, what does that tell you about the
5 nature of the consideration exchanged here that included the
6 2.25 percent deal?

7 A Vtech at the same time agreed to pay a \$12 million payment
8 to Motorola to help settle that open issue regarding the
9 cordless phones.

10 Q And from an economic analysis standpoint, what does
11 that -- how do you -- how do you use the 2.25 percent as a
12 comparable under these circumstances?

13 A Well, if you look -- I don't think there is very much you
14 can. If you look at the total value of the agreement,
15 clearly it would be dominated by that \$12 million. My
16 understanding is that today, under the 2.25 percent, the
17 amount that Vtech has paid has been very small, in the
18 thousands, not \$12 million range. And it is pretty clear,
19 you know, from the letter that was originally written that
20 the agreement to license at those rates was tied into
21 settling the agreement or the dispute with Motorola.

22 Q You were asked about whether people should be forced to
23 join patent pools, and you said no. Is there anything about
24 your suggestion that patent pools form a valid comparable in
25 this case for determining RAND that is equivalent to forcing

1 people to join patent pools?

2 A No. In fact, here is a good analogy. Let's say you
3 wanted to value my house, and I didn't want to sell my house,
4 but I needed to transfer it for some tax reasons or something
5 else. I would look at other people who sold houses. I chose
6 not to sell my house. And I had every right to choose not to
7 sell my house. But that doesn't mean the price somebody else
8 sold it for isn't a valid comparable. The fact that I
9 decided not to sell doesn't tell me a comparable from
10 somebody else who did decide to sell is inappropriate.

11 Q We had some testimony from Mr. Glanz this morning that the
12 Via folks and the MPEG LA folks were competitors in this
13 situation relating to being the successful pool for H.264.
14 What relevance is there to the fact that there is competition
15 among patent pools to whether pro rata royalties as a method
16 of distribution is a valid or accepted method?

17 A Well, I mean, again, these patent pool providers, they
18 have incentive to get people to use their pool rather than
19 somebody else's pool. And if distributing royalties in
20 another way, for example trying to ascertain the precise
21 value of each of the component patents was a superior system,
22 and a system that did better at attracting people to the
23 patent pool, we would think they would have every incentive
24 to do that, because that would give them a leg up on the
25 other patent pool provider who used an inferior method. What

1 that tells me as an economist is that there is value to doing
2 it this way. That is, the benefits of doing it on a pro rata
3 basis exceed the cost.

4 Q The other Via pool on 802.11 that you discussed, it was
5 pointed out that pool was formed six years after the standard
6 was adopted. How does that relate to its validity as a
7 comparable as an ex ante event?

8 A I think that would mean there would be some greater
9 potential for hold-up there. Now, the fact that it is a pool
10 would mitigate against that to some extent. But, if
11 anything, the potential for it to include some hold-up would
12 push the rates to be higher than you would expect in a true
13 ex ante negotiation. That would make the rates, if anything,
14 too high.

15 Q And what was the sort of continuum of the spread of 802.11
16 between the time of adoption and the time of the Via pool and
17 today? Are you aware to what extent there had been
18 widespread adoption at the time of the pool?

19 A 802.11 had become reasonably well adopted by the time we
20 got -- I think it was 2005 when the Via Licensing pool came
21 into existence. It wasn't as widespread as it is today, so
22 it has continued to evolve and expand. It certainly was well
23 off the ground by that time.

24 MR. HARRIGAN: No further questions.

25 THE COURT: Mr. Pepe?

1 MR. PEPE: No questions.

2 THE COURT: Dr. Murphy, I have some. You're an
3 economist, you said that several times, and not a specialist
4 in essential patents. But in a patent pool, is that limited
5 to a particular area of commerce? If I had a patent that was
6 applicable to DVDs or to cellular phones, I have a joined a
7 pool, am I able to use it in both?

8 THE WITNESS: It would depend on the rules the pool
9 set up. I think generally they try to keep it simple. I
10 think that helps join the technology. You know, in this
11 case, both the pools in question here set per unit royalties,
12 which if you think -- is one way to do it. That accommodates
13 it being put into a wide range of products.

14 So like my kind of fun example was the cruise ship. You
15 certainly wouldn't want to take -- say, if you had a
16 WiFi-enabled cruise ship, you owe me 2.25 percent of the
17 selling price of the cruise ship. That would be an enormous
18 number. You would more likely say how many devices do you
19 have on the cruise ship, and you pay those. And if somebody
20 had an office building, it would be the same way.

21 I think one of the things that helps them do it over a
22 wide range of products is having that per unit royalty.

23 THE COURT: Let's talk about the per unit royalty for
24 a bit. Are you aware of patent pools that base the royalty
25 on the value of the end product?

1 THE WITNESS: I haven't studied them all in detail.
2 Most of the ones I know of do it on a unit basis, although
3 there probably are some out there who have done it the other
4 way. I think you tend to do it the other way when there
5 is -- It depends on the nature of the product. The 802.11,
6 for example, for the Xbox, the proportionate royalty is
7 really problematic. And I pointed this out in my report,
8 because, for example -- Microsoft used to sell the 802.11
9 adapter separately, and so they sold it for like \$70 or
10 whatever. And they sold it with the Xbox for a couple of
11 hundred dollars. And so when they -- the people who bought
12 the 802.11 separately obviously are the people who valued it
13 the most. Under this 2.25 percent royalty the patent
14 licensor would collect 2.25 percent of the \$70 for the
15 fraction of people that bought it.

16 When you integrate it into the system in a later version
17 of the Xbox, the value per unit obviously went down because
18 you weren't just selling to the most highly valued users, you
19 are now getting to collect on every unit sold. But a
20 proportionate royalty would actually entitle you to collect
21 now instead of 2.25 percent of \$70, 2.25 percent of several
22 hundred dollars. So that was a good example where this
23 proportionate royalty didn't make any sense. In a case where
24 we know the royalty should be going one way, the
25 proportionate royalty was actually pushing it in the opposite

1 direction. That was the one I focused on for purposes of my
2 analysis, because it was the example that was applicable to
3 this particular case.

4 THE COURT: So that our record is clear, when you say
5 that in the patent pool it is based on the sale of a unit,
6 what do you mean by that?

7 THE WITNESS: You talked earlier about the software.
8 So you have it in a piece of software. So for every copy of
9 that software I sell I am going to pay a certain amount. So
10 if it is a 20¢ per unit royalty, I sell a copy of the
11 software, I have to pay 20¢ to the pool. Or if I sell -- if
12 it is on a physical device, for every device I sell I pay
13 20¢.

14 THE COURT: Let's take your example then. You've got
15 operating system software selling for \$125 that's using an
16 industry standard, and it is paying 20¢ per unit or per
17 software copy. The same industry standard is in a \$1 -- what
18 we keep calling a toy, the same remuneration, 20¢. As an
19 economist, how do you explain that?

20 THE WITNESS: What matters is whether the value that
21 is being added is the same amount to the two products. That
22 is, is it providing the same dollar amount of increment to
23 functionality? Is the ability to connect, for example, to
24 the network worth the same for those two products?

25 You can come up with examples where per unit does really

1 well, like in this case where you were talking about whether
2 it is a stand-alone adapter that I plug into my box, or
3 whether it is built into the computer, I should pay the same
4 amount because I end up with exactly the same product,
5 whether I buy them together or buy them separately.

6 I think in your example you would say a per unit royalty
7 maybe isn't going to be the perfect royalty in that case. It
8 depends on the particular example you are looking at.

9 THE COURT: Before a pool is created you have a
10 patent which is an industry essential patent. It has a
11 value. And what I understand you are saying is that value
12 would depend on its contribution to the usefulness of the
13 standard; is that correct?

14 THE WITNESS: You have to be careful, because it is
15 contribution relative to the next best alternative, right.
16 It is like a jar of water. You might say, well, that is
17 incredibly useful; if I don't have water I'm going to die.
18 But the value of the water in the marketplace is determined
19 by how valuable is that water compared -- I can get water
20 somewhere else, so that limits its value. And that is very
21 important to remember.

22 The value of what a patent adds to the standard is not
23 what you would lose if you did without that functionality, it
24 is if you had to put the next best alternative in there.

25 So if Apple and IBM both come to the standard setting

1 organization, and Apple's patent would add 21¢ per unit sold
2 to the value, and IBM's would add 20¢, the net value added by
3 Apple's technology is a penny. Because if they hadn't put
4 Apple's technology in there they could have put IBM's
5 technology in there. That is the economic value added of the
6 technology.

7 THE COURT: You are embracing Judge Posner's
8 design-around recent opinion that embraces the concept of
9 design around in measuring damages?

10 THE WITNESS: I think that is kind of where you go,
11 because that's what economics tells what happened. That's
12 what determines the value of things. If I was going out
13 there trying to decide what patent I am going to use, I would
14 be -- there would be competition between Apple and IBM in my
15 example to contribute their technology.

16 THE COURT: Let me take you to the next step. Once
17 we are inside the pool, what I have heard you say is that
18 patent has the same value as every other patent. And is
19 there any justification for that other than broadening the
20 market by setting up an industry standard?

21 THE WITNESS: I would say as an exact method, no. I
22 think it is hard to say why that is going to give -- It is
23 never going to give you exactly the right answer. I think
24 the flaw is that the key notion is the value created by that
25 standard -- the expansion in value that people are going to

1 get, that one penny of value added is going to get multiplied
2 by a big number if we make this patent successful. And using
3 that numerical apportionment is a good way to get lots of
4 people on board to get the standard moving.

5 I say -- Am I convinced as a theoretical matter that it
6 should work? No. As a theoretical matter it may or may not
7 work well. What tells me it seems to work pretty well is
8 that's what pools do. There is competition among these
9 pools. If it was better to do it a different way --
10 Remember, Via lost out in the H.264 space. Their pool lost
11 out to the MPEG LA pool. If the way to get the best patents
12 was to do it this other way, you would think they would have
13 every incentive in the world do it. The problem is, it is
14 costly. It is a hard process already to get everybody on
15 board to produce a standard.

16 If you start getting into the game of how are we apportion
17 these things, it is not going to be so easy.

18 THE COURT: I think it was Justice Potter Stewart who
19 was famously quoted as saying he couldn't very well define
20 it, but he recognized pornography when he saw it. What I've
21 heard from your testimony today is, you can't quantify it,
22 but you recognize stacking and hold-up when you see it. How
23 do I quantify stacking and hold-up?

24 THE WITNESS: I would say hold-up -- It is not that
25 we can't see hold-up. It is that hold-up has not necessarily

1 been a problem. But the reason hold-up has tended to not be
2 a problem is because we have a RAND commitment. The RAND
3 commitment is there precisely to avoid that hold-up. And we
4 have been in a situation where people have, I think, by and
5 large abided by the RAND commitment. If people don't abide
6 by the RAND commitment, then hold-up becomes a problem, and
7 stacking becomes a problem at the same time.

8 The perpetuation of that situation in which people abide
9 by the RAND commitment and set reasonable royalties I think
10 depends on ultimately, when it is litigated, that we come up
11 with a reasonable --

12 We enforce the idea that you can't hold people up. That's
13 what prevents people from holding up in the first place. It
14 is not unlike every other piece of enforcement that we have
15 out there. You never want to be in a situation where the
16 court or anybody else has to adjudicate every single
17 transaction. But we know in order to get transactions to
18 solve their -- transactors to resolve their own disputes, we
19 have to at the end of the day enforce the rules required to
20 make it work. And the RAND commitment, and the commitment
21 that I'm going to have to charge a reasonable royalty even
22 though I could hold people up -- Because once they have
23 adopted that standard, they have very little option, they
24 have very few places to go. If I want to communicate with
25 other people via WiFi, I have to use the same standard as

1 everybody else, because if I switch I can't communicate with
2 everybody.

3 THE COURT: That raises an issue with me, though,
4 because one of the things I am asked to do here is to
5 construct a hypothetical negotiation at a point in time. If
6 the point in time is before the adoption of the standard,
7 then I won't have the difficulty of saying it is now a
8 standard and there is value in it having become a standard.
9 If I do it after it has become a standard, then I have to
10 somehow account for the fact it now has that monopoly
11 standard power. How do I address that?

12 THE WITNESS: That's why we suggested the patent
13 pools. They are trying to solve that same problem that the
14 RAND commitment is. The whole issue of the RAND commitment
15 is keeping that rate at an appropriate, reasonable level that
16 will allow the standard to grow. That's why you have a RAND
17 commitment. People said if I don't have RAND I will get
18 hold-up, I will get stacking and all these other things, and
19 the standard won't be as successful as it should be.

20 Patent pools have that same objective. And that's really
21 fortunate for us because we can then say, look, I don't have
22 to do this hypothetical exercise, which is by its very nature
23 what we love to do, but is very hard. So what you do when
24 you can't perform a hypothetical exercise, you look for some
25 transaction that proxies that hypothetical exercise. And

1 that is the story I would say for the patent pools. It is
2 like they are doing what we are trying to do, and their
3 outcome gives us guidance.

4 And I don't want to oversell it. I don't want to say this
5 is going to give you the exact answer, but it is going to
6 point you in the right direction, because the very concerns
7 that they have, preventing hold-up, preventing stacking,
8 getting widespread adoption is the same objective that the
9 RAND commitment has. And that's why they are very, very
10 helpful.

11 THE COURT: All right. Mr. Harrigan, follow up.

12 MR. HARRIGAN: One question.

13 REDIRECT EXAMINATION

14 By Mr. Harrigan:

15 Q Professor, with reference to the MPEG LA H.264 pool, what
16 is it about the circumstances under which it was formed from
17 a timing standpoint that relates to whether it is a proxy for
18 ex ante royalties?

19 A Well, it was ex ante in two senses, I would say. One, the
20 negotiations took place right after the standard was adopted,
21 which is before it had widespread adoption. But it is also
22 my understanding that at the time there was competition from
23 other standards, and therefore it hadn't been the only choice
24 at the time. So the hold-up potential was limited for that
25 reason as well. So the timing is helpful, as is the

1 existence of potential alternatives.

2 MR. HARRIGAN: No further questions.

3 THE COURT: Mr. Pepe?

4 MR. PEPE: No questions, your Honor.

5 THE COURT: You may step down. Thank you, sir.
6 Microsoft may call its next witness.

7 MR. HARRIGAN: Mr. Pritikin will be examining.

8 MR. PRITIKIN: Your Honor, we are calling Gary
9 Sullivan as our next witness.

10 Whereupon,

11 GARY SULLIVAN

12 called as a witness, having been first duly sworn, was
13 examined and testified as follows:

14 THE CLERK: Will you state your full name for the
15 record and spell your last name, please?

16 THE WITNESS: Gary Sullivan, S-U-L-L-I-V-A-N.

17 THE COURT: You may inquire.

18 DIRECT EXAMINATION

19 By Mr. Pritikin:

20 Q Dr. Sullivan, by whom are you employed?

21 A Microsoft.

22 Q What is your current position?

23 A Internally I am classified as a principal software
24 development engineer. My business cards and external
25 communication identify me as video and image technology

1 architect.

2 Q Could you describe your education for us?

3 A I have a bachelor's and master's degree from the
4 University of Louisville in Kentucky, and an engineer's
5 degree and Ph.D. from UCLA. All of those are in electrical
6 engineering.

7 Q Now, you have a witness binder in front of you,
8 Dr. Sullivan. Could you turn, please, to Exhibit 618? Is
9 this a copy of your Ph.D. thesis?

10 A Yes, it is.

11 Q Can you tell us, generally, what the subject was of the
12 thesis?

13 A Well, it was on video coding, or coding of moving images,
14 using vector quantization, motion compensation and quadtree
15 decomposition.

16 Q When was the thesis submitted?

17 A In late August or early September of 1991.

18 Q And did you distribute copies to others at that time?

19 A Yes, I personally made 20 or 30 copies, and gave them to
20 various friends and associates.

21 Q And was it also placed in the library at UCLA?

22 A Yes.

23 MR. PRITIKIN: Your Honor, Microsoft offers
24 Exhibit 618.

25 MR. ROWLAND: No objection, your Honor. Mark

1 Rowland.

2 THE COURT: Thank you, Mr. Rowland.

3 (618 admitted.)

4 By Mr. Harrigan:

5 Q Doctor, what did you do after you received your Ph.D.?

6 A Shortly after that I went to work for a company named
7 PictureTel in the Boston, Massachusetts area. I started
8 there in late October or early November of 1991.

9 Q And what was the business of PictureTel?

10 A They were a leading video conferencing company at the
11 time.

12 Q How long did you stay at PictureTel?

13 A Seven or eight years.

14 Q Did you then join Microsoft?

15 A Yes.

16 Q And approximately when was that?

17 A In the spring of 1999.

18 Q Can you tell us what your principal areas of
19 responsibility have been at Microsoft?

20 A The first thing that I was hired to do at Microsoft was to
21 develop what became known as DirectX video acceleration,
22 which is a way to play video on a PC through the Windows
23 operating system using hardware acceleration built into
24 graphic accelerators. Later, I became more and more involved
25 in standardization, which I was already doing when I joined

1 the company. It eventually became the vast majority of my
2 job.

3 Q Would you turn to exhibit -- demonstrative Exhibit 4008 in
4 the booklet. Have you prepared a demonstrative showing the
5 primary standards organizations in the video field?

6 A Yes.

7 Q Dr. Sullivan, this is a real alphabet soup. I wonder if
8 using Exhibit 4008 you could explain to us briefly what are
9 the principal organizations and the letter schemes of the
10 standards?

11 A The two organizations that have made the most predominant
12 video coding standards have been the MPEG Video Activity,
13 which is part of the ISO/IEC organization, internationally,
14 and the VCEG organization, which is part of the ITU, the
15 International Telecommunications Union.

16 Q What do they stand for, MPEG and VCEG?

17 A MPEG is the Moving Pictures Experts Group in the ISO/IEC
18 community. And VCEG is the Video Coding Experts Group. The
19 standards that they produce are generally -- in the MPEG
20 world the standard is generally called MPEG something, like
21 MPEG-1 or MPEG-2, or something of that sort. The standards
22 produced in the ITU for video are called H.26 something, like
23 H.261, 2, 3, 4.

24 Q Now, you also have something called JVT, Joint Video Team.
25 What is that?

1 A Yes. These two organizations, MPEG video and VCEG, joined
2 up together to create the Joint Video Team. That was a joint
3 organization of the two video-coding standard bodies.

4 Q Is that the group then that finalized the H.264 video
5 standard?

6 A Yes.

7 Q Now, looking at these three organizations, have you had
8 leadership positions in any of these organizations?

9 A Yes, I have, in all three.

10 Q And would you tell us what those positions have been?

11 A Well, I have been the chairman -- what's called the
12 rapporteur of the video-coding expert's group in the ITU
13 since 1997. I was the chair of its primary activity in the
14 ITU for sometime before that, starting in '96. I have been
15 chair of MPEG video off and on since 2001. And I was the
16 chair of the JVT.

17 Q Are you currently the chair of the MPEG video group and
18 the VCEG group?

19 A Yes.

20 Q Now, at the time that work began on the H.264 standard,
21 what was the predominant video standard?

22 A That would be MPEG-2, also known as H.262 in the ITU.

23 Q Was that standard widely implemented?

24 A Yes, it was widely implemented.

25 Q Is it still used today?

1 A Yes, it is.

2 Q And can you give us examples of where it would be used
3 today?

4 A It is used for DVD movies. It is used for broadcast
5 television in the United States, and I think it is used on
6 some cable television systems.

7 Q Now let's turn specifically to H.264. Have you prepared a
8 timeline showing the development of the H.264 standard?

9 A Yes.

10 Q And is that on the board behind you?

11 A Yes.

12 Q And perhaps we could put it on the screen as well.

13 I don't know if your Honor can see that. Is that in a
14 good position?

15 THE COURT: It's fine.

16 By Mr. Pritikin:

17 Q Dr. Sullivan, looking at this, you have a blue line and a
18 red line. Can you tell us what the blue line is?

19 A The blue line is the project work going on in the ITU VCEG
20 organization.

21 Q What is the red line?

22 A Or orange line, I guess. Oh, it is red over there. That
23 is the project activity in the MPEG video.

24 Q Let's talk first about the events on the blue line. What
25 happened in January of 1998?

1 A VCEG issued a call for proposals for a new technology to
2 become a new standard far superior in compression to existing
3 standards at the time.

4 Q And who was the chairman of VCEG at that time?

5 A I was.

6 Q What were the goals at VCEG for the H.264 standard at the
7 outset?

8 A Well, the primary goal was significantly improved
9 compression capability relative to prior standards. There
10 were some other goals, but that was the primary goal.

11 Q What happened in August of 1999?

12 A That's when VCEG adopted its first draft of the new
13 standard.

14 Q Now, you have drawn a bracket spanning the period from
15 August 1999 into the spring of 2001. What happened during
16 that period?

17 A During that period VCEG met about every three months in
18 various places, and continued to improve the draft design
19 that we had at first adopted in August of '99. At each
20 meeting we would add features and capabilities to the draft
21 standard and improve it.

22 Q Now, typically how many companies or individuals submitted
23 documentary proposals during this period?

24 A Well, we would have about 40 or 50 people at each meeting,
25 roughly speaking, and numbers of documents in the range of

1 maybe 30 to 60 at each meeting. Perhaps half of those would
2 be proposals or analysis documents regarding the draft
3 standard that we were preparing.

4 Q One of the terms that is used, and it may be a little
5 confusing, is contribution or contribution document. What
6 did you consider to be a contribution document?

7 A Any document that was submitted to the committee. It
8 could be a proposal for a technical change to the draft
9 standard, it could be a study of the performance of the
10 draft, or a study of some related technology, a communication
11 message, some sort of information relative to the work of the
12 committee.

13 Q So a contribution or contribution document would not
14 necessarily be a proposal?

15 A That's correct.

16 Q Now, did the number of people attending these meetings
17 grow over time?

18 A Yes. At the beginning of this process, starting in, say,
19 late '98, or '99, we would have maybe 40 or 50 people coming
20 to the meetings. As the work progressed, it became well
21 known in the community that we were really achieving
22 something substantial. And so around the end of 2000, 2001
23 we had a significant increase in the number of attendees, and
24 in the number of contribution documents.

25 Q You also made a note there of test verification of about

1 50 percent improvement. By the spring of 2001, how much
2 improvement had you achieved over the prior standards?

3 A Well, we estimated that the average would be about a
4 50 percent bit rate savings for the same video quality. So
5 cutting in half the number of bits that you would need to
6 code video with a certain level of video quality, on average.

7 Q Now, let's go to the red line or brown line on the screen
8 and talk about what the MPEG group was doing. What happened
9 in January of 2001?

10 A MPEG issued its own call for proposals for significant
11 advanced technology for compression capability.

12 Q And what happened in July of 2001?

13 A There was a test conducted where people could submit
14 proposals in response to this call that had been issued in
15 January. And in particular the VCEG organization submitted
16 its draft design in July 2001 for its evaluation by MPEG, and
17 proposed to join forces with MPEG to finalize the draft
18 standard.

19 Q At this point were you chair of both the MPEG video group
20 and VCEG?

21 A Yes, I was at that point. Yes.

22 Q Did MPEG adopt the VCEG design in July of 2001?

23 A Yes, it did. MPEG adopted the VCEG design and
24 communicated positively in response to the VCEG proposal
25 proposing to join together for the future work to finalize

1 the standard together.

2 Q And then if we jump ahead to December of 2001, you show
3 the JVT being formed. Were you designated as chairman of the
4 JVT?

5 A Yes, I was the chair of the JVT.

6 Q Were there vice-chairs?

7 A Yes.

8 Q Who were they?

9 A There was Thomas Wiegand from the Fraunhofer Heinrich Hertz
10 Institute in Germany and Ajay Luthra of Motorola.

11 Q When was the first release of the final version of H.264?

12 A That was in May of 2003.

13 Q Now, I want to go back and focus for a moment on the VCEG
14 proposal from the summer of 2001. Did that proposal include
15 any coding tools for interlaced video?

16 A No, it did not.

17 Q So it was simply progressive video?

18 A Yes.

19 Q Why not?

20 A Well, interlaced video scanning is sort of a primitive
21 compression technology from around 1940. Since then, people
22 felt like the modern digital compression technologies were
23 superior to that, and that interlaced video would be waning
24 in importance. So at the time we did not include any
25 particular support for interlaced video in the design.

1 Q Now, let's talk about the version that you had by July
2 of 2001. You said it had a 50 percent improvement. How did
3 that compare to the results of the first release of the final
4 version of H.264 in 2003?

5 A I would say it was very similar in its capabilities. VCEG
6 had done a lot of work leading up to this test done in July
7 of 2001. The vast majority of the advance in compression was
8 already well in place by that time.

9 Q Now, as you think back on the work that led to that 2001
10 VCEG submission, which companies or organizations stand out
11 as having made some of the most important contributions?

12 A Well, there were lots of companies that participated. As
13 I said, we might have 40 or so people at every meeting from
14 various companies around the world. However, if you ask
15 which companies stand out in my mind as significant
16 contributors, one would be Telenor. Telenor submitted the
17 proposal that became the basis of the first draft of the
18 design in August of 1999.

19 Another was Fraunhofer Heinrich Hertz Institute of
20 Germany. They made quite a few contributions.

21 Another was Nokia. They were also very active in the
22 work.

23 Q Now, when did Motorola become interested in the work of
24 VCEG?

25 A I believe that was around mid-2001.

1 Q And did it become public at that time that you were making
2 good progress?

3 A Oh, yes, by then it was very well known that we were
4 making substantial progress.

5 Q And when did Motorola make its first proposal?

6 A A proposal I believe was submitted to the first meeting of
7 the JVT in December of 2001, after the groups joined forces.

8 Q So during this entire three-year period, when VCEG
9 achieved a 50 percent compression improvement, that you said
10 was close to the compression improvement in the final
11 standard, was Motorola responsible for any of that?

12 A No, they did not make any proposals during that process.

13 Q Now, could you turn to Exhibit 424 in your exhibit binder?
14 Can you identify this, Dr. Sullivan, as an article published
15 in the IEEE transactions on circuits and systems for video
16 technology in July of 2003?

17 A Yes.

18 Q Did you co-author this with Doctors Wiegand, Bjontegaard
19 and Luthra?

20 A Yes, I did.

21 Q And has this article been referenced over the years in
22 publications dealing with H.264?

23 A Yes. This is by far the most well-known publication about
24 the standard. It has been referenced many times in many
25 academic works.

1 MR. PRITIKIN: Microsoft offers Exhibit 424, your
2 Honor.

3 MR. ROWLAND: No objection.

4 THE COURT: It is admitted.

5 (424 admitted.)

6 By Mr. Rowland:

7 Q Dr. Sullivan, attached to it is 424(a), which is a blown
8 up and easier to read version of the top graph from figure 18
9 on Page 574. Do you have a copy of that in your booklet as
10 well?

11 A Yes, I do.

12 MR. PRITIKIN: Your Honor, Microsoft offers 424 (a)
13 as well.

14 MR. ROWLAND: No objection.

15 THE COURT: 424(a) is admitted.

16 (424(a) admitted.)

17 By Mr. Pritikin:

18 Q Let's look at 424(a), because it is a bit easier to read.
19 Can you tell us first, generally, what is shown on this
20 graph?

21 A This shows a number of curves, each of which represent the
22 compression performance of a draft of the standard as we were
23 developing it.

24 Q And what is on the vertical axis?

25 A That is PSNR. That is the measure of video quality. In

1 quality measurement, higher is better for PSNR.

2 Q So if we are looking at the graph, we go up, higher means
3 it has better quality?

4 A Yes, that's better quality.

5 Q And what is shown on the horizontal axis?

6 A That is bit rate and kilobits per second. That is the
7 amount of bits that is needed to achieve the level of
8 quality.

9 Q I will ask you the question, which is better, going left
10 or right?

11 A Going left is better, because that is a savings in bit
12 rate.

13 Q Now, what is represented by the various curves that are
14 shown here?

15 A Each one is the performance of a draft of the standard
16 known as H.264 MPEG-4 AVC. There are various versions of the
17 draft that are tested here. There are also two curves
18 included for reference that are the performance of prior
19 standards.

20 Q Let's go through the legend very quickly. What does TML
21 refer to?

22 A TML means test model long-term. That is the vergence of
23 the standard that -- as they were being developed in VCEG,
24 before the two organizations jointly began working on the
25 project together.

1 Q And what does JM refer to?

2 A JM means joint model, and the different versions of the JM
3 are versions of the draft standard after the two groups
4 joined together.

5 Q And finally, I think you said there were two older
6 reference standards. What are those?

7 A We have H.263 plus. That is the second version of the ITU
8 H.263 standard, and the other is MPEG-4 advanced simple
9 profile. Again, these are both older standards that have
10 been developed before the H.264 or AVC standard.

11 Q Now, if we want to compare one version to another, how do
12 we determine from looking at this graph whether a particular
13 standard achieves better compression than another standard?

14 A Well, a better curve would be a curve that is farther to
15 the left, or higher on the chart.

16 Q And what is the last TML version shown?

17 A That's TML-9.

18 Q And what is the date of that?

19 A TML-9 would be from September of 2001, the last version
20 produced by VCEG before the groups joined together as a joint
21 project.

22 Q Had Motorola made any proposals embodied in TML-9?

23 A No.

24 THE COURT: At that point we are going to stop,
25 counsel. We will resume tomorrow morning. Mr. Harrigan, who

1 will Microsoft be calling for witnesses tomorrow?

2 MR. HARRIGAN: I will turn to someone that has the
3 list.

4 MS. ROBBINS: Your Honor, Ellen Robbins on behalf of
5 Microsoft. Tomorrow we will be starting with Leo
6 Del Castillo. We will finish, obviously, with Mr. Sullivan.
7 Del Castillo, Orchard, Jennifer Ochs and Jerry Gibson. I
8 believe that should take us through the end of the day at
9 3:00.

10 THE COURT: All right. Counsel, any matters we
11 should take up before we adjourn for the day?

12 MR. PRITIKIN: Not for us.

13 MR. JENNER: Nothing from Motorola, your Honor.

14 THE COURT: Subject to my mathematics being correct,
15 Microsoft used three hours and 35 minutes today, and Motorola
16 used one hour and 55 minutes. You can guide yourselves
17 accordingly.

18 MR. JENNER: Your Honor, do you have or do you know
19 when you will have readings on the deposition designations?

20 THE COURT: I know that I am going to eat whatever
21 time I take in excess. You will have through noon on
22 Wednesday if you need it as available time.

23 MR. JENNER: Thank you.

24 THE COURT: I would be delighted if you are finished
25 by the close of business on Tuesday, but I don't want to rush

1 you guys either.

2 MR. JENNER: We just have in mind the allocations you
3 had mentioned. We are counting minutes as carefully as we
4 can. We don't want to run afoul of the court's schedule.

5 THE COURT: You are in good shape. All right.
6 Counsel, I am sorry that we are going to cause you to clear
7 off your tabs, but that's one of the things that will happen
8 today. We will be in recess until 9:00 tomorrow morning.

(Adjourned.)

C E R T I F I C A T E

we, Debbie K. Zurn and Barry Fanning, Court Reporters for the United States District Court in the Western District of Washington at Seattle, do hereby certify that we were present in court during the foregoing matter and reported said proceedings stenographically.

We further certify that thereafter, we have caused said stenographic notes to be transcribed under our direction and that the foregoing pages are a true and accurate transcription to the best of our ability.

Dated this 18th day of December, 2012.

/s/ Debbie Zurn, Barry Fanning

**DEBBIE ZURN/BARRY FANNING
OFFICIAL COURT REPORTERS**